Pioneer

AUDIO/VIDEO
MULTI-CHANNEL AMPLIFIER

VSA-E07

Operating Instructions

IMPORTANT 1

The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

CAUTION
RISK OF ELECTRIC SHOCK
DO NOT OPEN

CAUTION:
TO PREVENT THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

IMPORTANT 2

FOR USE IN THE UNITED KINGDOM

The wires in this mains lead are coloured in accordance with the following code :

Blue : Neutral
Brown : Live

If the plug provided is unsuitable for your socket outlets, the plug must be cut off and a suitable plug fitted.

The cut-off plug should be disposed of and must not be inserted into any 13 amp socket as this can result in electric shock. The plug, or adaptor or the distribution panel should be provided with 5 amp fuse. As the colours of the wires in the mains lead of this appliance may not correspond with coloured markings identifying the terminals in your plug, proceed as follows :
The wire which is coloured blue must be connected to the terminal which is marked with the letter N or coloured black.
The wire which is coloured brown must be connected to the terminal which is marked with the letter L or coloured red.

Do not connect either wire to the earth terminal of a three - pin plug.

NOTE:
After replacing or changing a fuse, the fuse cover in the plug must be replaced with a fuse cover which corresponds to the colour of the insert in the base of the plug or the word that is embossed on the base of the plug, and the appliance must not be used without a fuse cover. If lost, replacement fuse covers can be obtained from your dealer.
Only 5 A. fuses approved by B.S.I. or A.S.T.A. to B.S. 1362 should be used.

Thank you for buying this Pioneer product.
Please read through these operating instructions so you will know how to operate your model properly. After you have finished reading the instructions, put them away in a safe place for future reference.
In some countries or regions, the shape of the power plug and power outlet may sometimes differ from that shown in the explanatory drawings. However, the method of connecting and operating the unit is the same.

Power cord CAUTION!

Handle the power cord by the plug. Do not pull out the plug by tugging the cord and never touch the power cord when your hands are wet as this could cause a short circuit or electric shock. Do not place the unit, a piece of furniture, etc., on the power cord, or pinch the cord. Never make a knot in the cord or tie it with other cords. The power cords should be routed such that they are not likely to be stepped on. A damaged power cord can cause a fire or give you an electrical shock. Check the power cord once in a while. When you find it damaged, ask your nearest PIONEER authorized service center or your dealer for a replacement.

[For European model]

If the socket outlets on the associated equipment are not suitable for the plug supplied with the product the plug must be removed and appropriate one fitted.
The cut-off plug must be disposed of as an electrical shock hazard could exist if connected to a socket outlet.

WARNING: TO PREVENT FIRE OR SHOCK HAZARD, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.

This product complies with the Low Voltage Directive (73/23/EEC), EMC Directives (89/336/EEC, 92/31/EEC) and CE Marking Directive (93/68/EEC).

THE POWER SWITCH IS SECONDARY CONNECTED AND THEREFORE DOES NOT SEPARATE THE UNIT FROM MAINS POWER IN STANDBY POSITION.

Maintenance of External Surfaces

- Use a polishing cloth or dry cloth to wipe off dust and dirt.
- When the surfaces are dirty, wipe with a soft cloth dipped in some neutral cleanser diluted five or six times with water, and wrung out well, and then wipe again with a dry cloth. Do not use furniture wax or cleansers.
- Never use thinners, benzine, insecticide sprays or other chemicals on or near this unit, since these will corrode the surfaces.

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Features

MPEG (Moving Picture Experts Group) decoder equipped

MPEG Multichannel

DVD and other media recorded in MPEG audio can be played back.

The MPEG logo is a registered trademark of Royal Philips Electronics.

Automatic Decoding of DTS (Digital Theater Systems)

This is the latest and most widely used digital theater system for cinemas throughout the world. The decoder has been incorporated into this amplifier and is able to achieve high sound quality as well as produce dynamic surround sound effects.

"DTS" and "DTS Digital Surround" are trademarks of Digital Theater Systems, Inc. Manufactured under licence from Digital Theater Systems, Inc.

Automatic Decoding of Dolby Digital and Dolby Pro Logic

No need to worry about program formats. When playing Dolby Digital or Dolby Surround software in the DD (Dolby) Surround mode, decoding switches automatically according to the input signal.

Manufactured under license from Dolby Laboratories. "Dolby", "AC-3", "Pro Logic", and double-D symbol are trademarks of Dolby Laboratories. Confidential Unpublished Works. © 1992 - 1997 Dolby Laboratories. All rights reserved.

Direct Energy MOS amplifier

The VSA-E07 amplifier incorporates 5 independent 130 watt built in power amplifiers, with high-performance Hex power MOS FET output transistors. This construction provides improved linearity and accurate reproduction of each channel for true high fidelity reproduction from even the most demanding Dolby Digital and DTS program sources.

True Home Cinema with THX® Certification

The HOME THX CINEMA surround mode employs special processing to allow you to enjoy movie soundtracks with the same level of power and realism you experience in well designed movie theaters. You can enjoy this effect with both Dolby Digital, Dolby Surround and DTS sources.

Manufactured under license from Lucasfilm Ltd. Lucasfilm and THX are trademarks of Lucasfilm Ltd.

Advanced Theater Modes

This mode enhances the sound of either film or music so a more dramatic effect can be achieved. The four modes are each designed to accentuate specific sound qualities, giving the listener a wide range of possibilities.

DSP Surround Modes

DSP (Digital Signal Processing) surround mode gives you the capability of transforming your living room into six different sonic environments when listening to music.

Midnight Listening Mode

Midnight Listening mode allows you to obtain excellent surround sound effects even when listening at low volumes, something that was previously impossible.

Digital Noise Reduction

Digital Noise reduction is the latest technology for filtering out unwanted noise. It produces clear, resonant tones.

New LCD Remote Control

This touch sensitive screen remote control is the latest in convenient technology. It's easily viewed screen can access a huge amount of different buttons. Instead of the old method where one button had to perform many tasks, this remote can instantly change screens, allowing one button to have just one, clearly marked purpose. This remote can be used to operate a variety of other components simply by recalling the appropriate setup codes or by using the learning function to teach the remote control new commands. In addition, the multi-operation functions allow you to perform a variety of operations automatically.

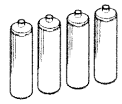
The Energy-saving Design

This unit is designed to use minimal electricity when power is switched OFF (in Standby mode).
Regarding the power consumption in standby mode, refer to "Specifications" on back cover.

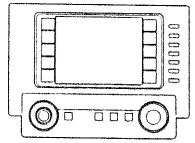
Before You Start

Checking the Supplied Accessories

Please check that you have received all of the following supplied accessories.



"AA" IEC LR6 batteries × 4



Remote control unit

Touch pen
(Attached to the back of the remote control)

Cushion for Remote × 4

How to Use This Manual

This manual is for the VSA-E07 Audio/Video Multi-Channel Amplifier.

This manual is divided into two main sections which will tell you how to setup and use the unit :

PREPARATION

First carry out the tasks below in this "Before You Start" section to prepare the remote control, then connect the amplifier to your other components as described in "Connecting Your Equipment" (p.8). Take special care to connect your digital equipment like DVD and LD player properly to be able to take advantage of the amplifier's surround sound systems (p.10-11). To learn about a specific button, control, or indicator, see "Displays & Controls" starting on p.16.

SETUP

Performing the tasks in "Initial Set Up" (from p.23) is essential to get proper surround sound.

OPERATION

To play some music or soundtrack refer to "Basic Playback" on p.38. Doing the operations in "Remote Control of Other Components" (p.50) is highly recommended so you can use this unit's remote control for all your components. "Using Other Functions" (p.62) explains the other possibilities of the amplifier.
"Techno Tidbits & Problem-solving" (p.68) provide detailed technical information and a troubleshooting guide.

The following marks and symbols are used throughout the manual:

Memo Provides additional information, precautions, and advice.

Indicates a blinking button, indicator, or display.

Indicates a steadily lit button, indicator, or display.

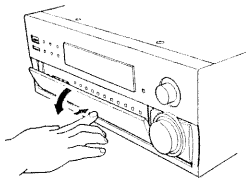
Installing the Amplifier

Ventilation

- When installing this unit, make sure to leave space around the unit for ventilation to improve heat radiation (at least 60 cm at the top, 10 cm at the rear, and 30 cm at each side). If not enough space is provided between the unit and walls or other equipment, heat will build up inside, interfering with performance or causing malfunctions.
- Do not place on a thick carpet, bed, sofa or fabric having a thick pile. Do not cover with fabric or other covering.
  Anything that blocks ventilation will cause the internal temperature to rise, which may lead to breakdown or fire hazard.

Opening the Front Panel

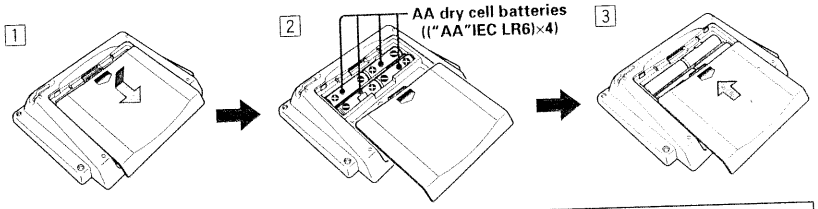
To open the front panel push gently on the lower third of the panel with your finger.



Preparing the Remote Control

Loading the batteries

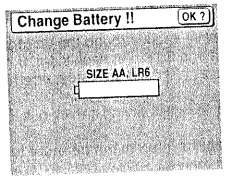
Load the batteries into the remote control as shown below. The remote control uses a lot of power due to the LCD display so please use alkaline batteries. Depending on individual use you may have to change the batteries fairly often but most users should be able to get an average of 1-3 months of battery life. When you notice a decrease in the operating range (see next page) or if the alarm sounds, replace all batteries with new ones.
NOTE: After replacing the batteries, the touch panel will need re-adjusting (see p.24).



CAUTION!
Incorrect use of batteries may result in such hazards as leakage and bursting. Observe the following precautions.
- Never use new and old batteries together.
- Insert the plus and minus sides of the batteries properly according to the marks in the battery case.
- Batteries with the same shape may have different voltages. Do not use different batteries together.

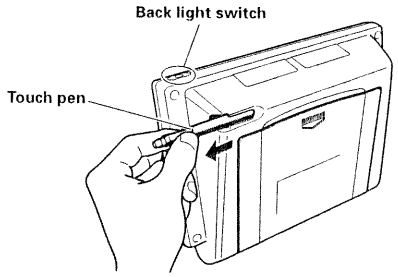
Remote Control Battery Alarm

When the batteries get too weak to operate the remote control properly an alarm will sound and a warning screen will appear on the remote. Change the batteries as above.



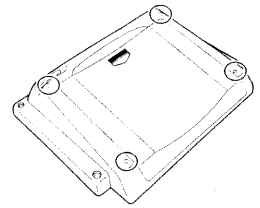
The Touch Pen & Backlight

The touch pen is located in the back right-hand corner of the remote control. Take it out by sliding your finger along the bottom right edge of the remote control and then grasping the pen with thumb and forefinger.
The backlight button is located in the top right-hand corner on the back of the remote control. Use this button in low-lighting to see the screen more clearly.



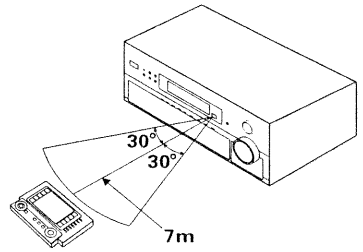
Remote Control Cushions

Apply the cushions to the feet of the remote control as shown in the diagram below.



Operating range of remote control unit

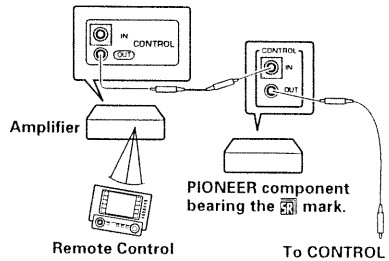
The area in which you can use the remote control to operate the VSA-E07 is fairly large. To use, point the remote control toward the remote sensor on the front panel of this unit while within the range shown below.



Memo
Remote control may not function properly if:
- There are obstacles between the remote control and the remote sensor.
- Direct sunlight or fluorescent light is shining onto the remote sensor.
- The receiver located near a device emitting infrared rays.
- Operated simultaneously with another remote control which uses infrared rays.

Operating other PIONEER components

Connecting an optional control cord allows you to operate other PIONEER components simply by pointing the amplifier's remote control at the remote sensor on the front panel of the amplifier. The amplifier then sends the remote control signals to the other devices via the CONTROL OUT terminal.



Memo
You can also control PIONEER components (and those made by other manufactures) by pointing the amplifier's remote control directly at the respective component. This type of operation does not require control cords. All you have to do is recall the appropriate preset code (Refer to"Recalling setting stored in the remote control" on page 50)).

Connecting Your Equipment

Before making or changing the connections, switch off the power switch and disconnect the power cord from the AC outlet.

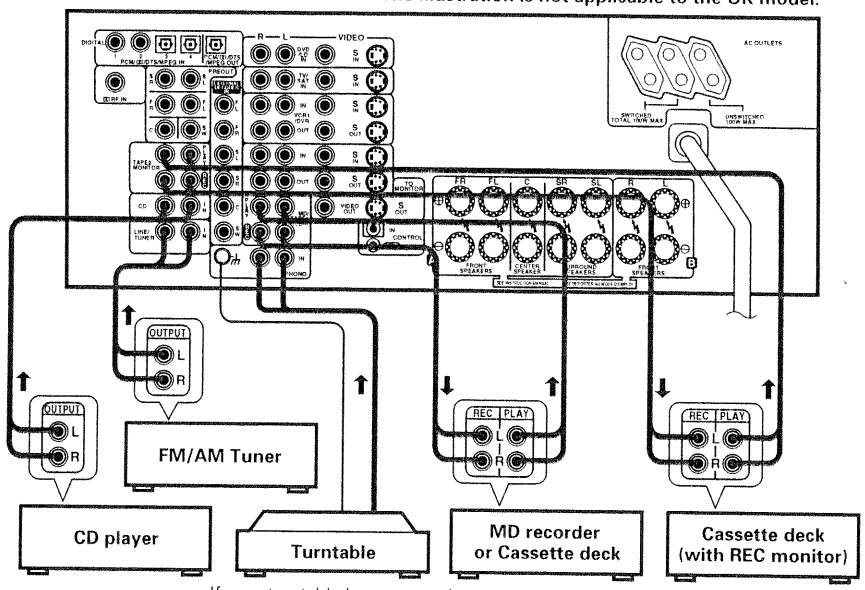
- To cover all possible Laser Discs, a DVD/LD player or LD player requires an analog connection and two digital connections (p.11).
- Regarding a DVD player, you must use the analog connections (Video Components (p.9)) and the digital connection (p.10).

Audio Components

To begin set up connect your audio components to the jacks as shown below. These are all analog connections and your analog audio components (turntable, cassette deck) use these jacks. Remember that for components you want to record with you need to hook up four plugs (a set of stereo ins and a set of stereo outs), but for components that only play (like a turntable) you only need to hook up one set of stereo plugs (two plugs). To use DTS surround sound features you must hook up your digital components to the digital inputs but it is also a good idea to hook up your digital components to analog audio jacks. If you want to record to/from digital components (like an MD) to/from analog components you must hook up your digital equipment with these analog connections. See p.10-11 for more on digital connections.

Memo The arrows indicate the direction of the audio signal.

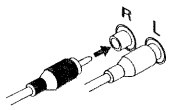
The illustration is not applicable to the UK model.



If your turntable has a ground wire, connect it to the ⏚ (signal ground) terminal.

■ Audio cords

Use audio cords (not supplied) to connect the audio components.



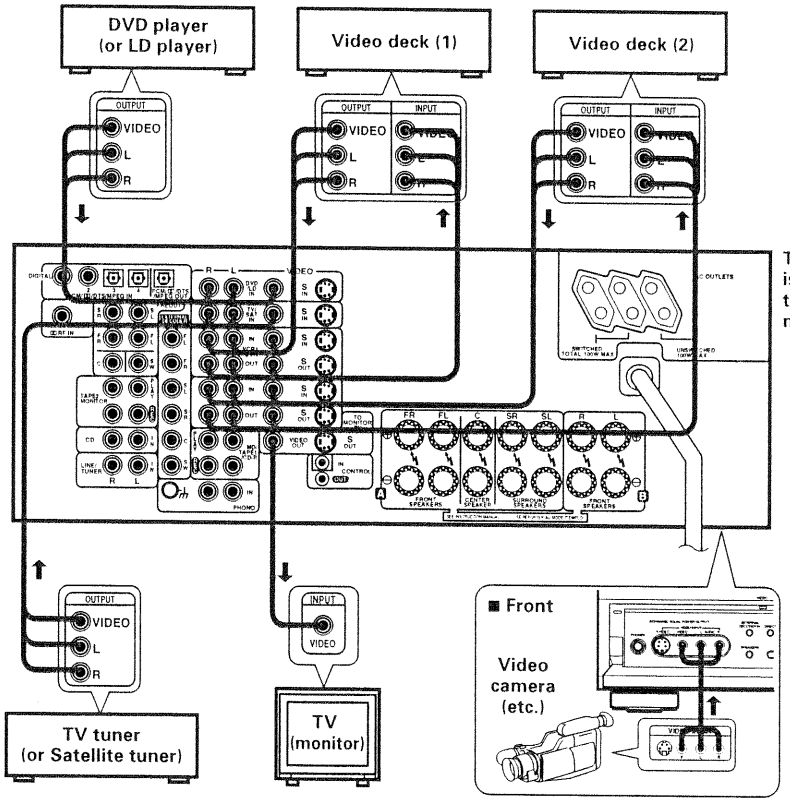
Connect red plugs to R (right) and white plugs to L (left).
Be sure to insert completely.

Cassette deck placement

Depending on where the cassette deck is placed, noise may occur during playback of your cassette deck which is caused by leakage flux from the transformer in the amplifier. If you experience noise, move the cassette deck farther away from the amplifier.

Video Components

Connect your video components to the jacks as shown below. Regarding digital video components (like a DVD), you must use the analog connections pictured on this page for the video signal but in order to use Dolby Digital/DTS you should hook up their audio to a digital input (see the next page). It is also a good idea to hook up your digital components with analog audio connections as well (see the previous page). To cover all possible laser discs a DVD/LD player or LD player requires an analog connection (as shown here) and two digital connections (see page 11).

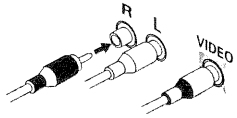


The illustration is not applicable to the UK model.

Front video connections are accessed via the front panel input selector as "VIDEO."

■ Audio/Video cords

Use audio/video cords (not supplied) to connect the video components and a video cord to connect the monitor TV.



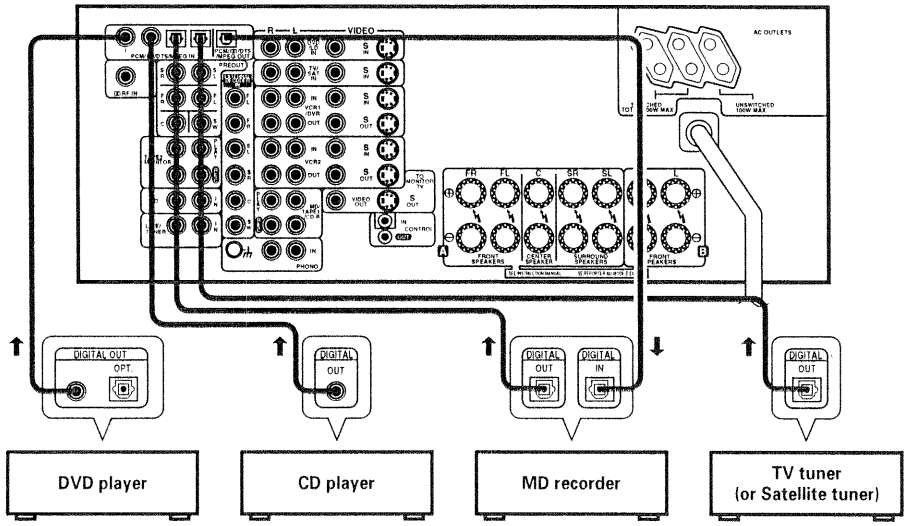
Connect red plugs to R (right), white plugs to L (left), and the yellow plugs to VIDEO.
Be sure to insert completely.

Memo If your video components have S-video jacks, you could use S-video cords (not supplied) to connect them on the back of the amplifier.
However, **if you use S-video cords for your video hook ups you must also hook up your TV with S-video connections. Conversely, if you use regular composite video cords for video hook ups, you should use them for your TV as well.**

Digital Connections

In order to use MPEG/Dolby Digital/DTS soundtracks you need to make digital audio connections. You can do this by either coaxial or optical connections (you don't need to do both). The quality of these two types of connections is the same but since some digital components only have one type of digital terminal, it is a matter of matching like with like (for example, the coaxial out from the component to coaxial in on the amplifier). The VSA-E07 has two coaxial and two optical inputs for a total of four digital inputs. You can assign the jacks to the proper component(s). Refer to "DIGITAL INPUT SELECT" on page 36. A DVD/LD player or LD player should be connected to a digital jack and the special ◻◻ RF jack (if the LD player has one) as well as a pair of analog jacks (see the previous page).
Connect your digital components as shown below. There is one digital out jack which is marked PCM/◻◻/DTS/MPEG OUT. If you connect this to the optical input on a digital recorder (currently these include MD, DAT and CD-R) you can make direct digital recordings with this unit.

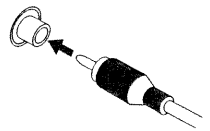
The illustration is not applicable to the UK model.



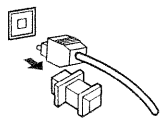
■ Digital audio cords/Optical cables

Commercially available digital audio coaxial cords (standard video cords can also be used) or optical cables (not supplied) are used to connect digital components to this amplifier.
When you use optical digital input or output terminals, pull off the caps and insert the plugs. Be sure to insert completely.

Digital audio cord (or standard video cord)



Optical cable



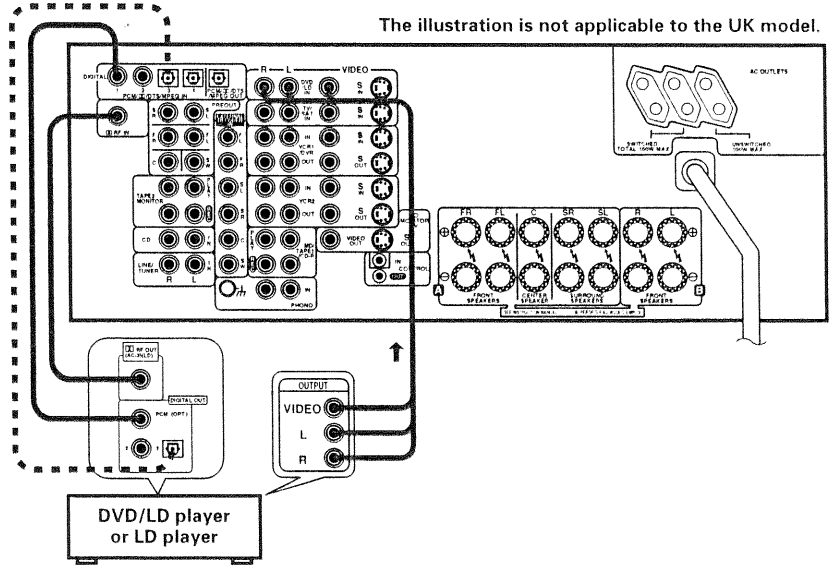
DIGITAL INPUT JACKS

The default setting for each of the digital inputs is described below.
DIGITAL 1: DVD/LD
DIGITAL 2: CD
DIGITAL 3: MD
DIGITAL 4: TV/SAT
◻◻ RF IN: DVD/LD

Example Connection for a DVD/LD or LD player

Make sure you connect your DVD/LD or LD players using both the ◻◻ RF jack and a coaxial or optical connection. If your player has an ◻◻ RF output this will ensure you can use all LDs (see p. 36).

The illustration is not applicable to the UK model.

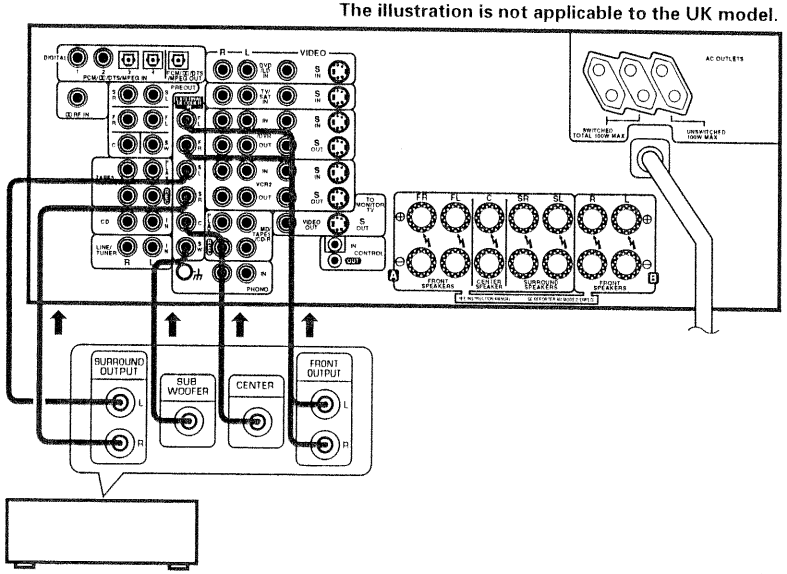


Memo Be sure to make either a digital coaxial or digital optical connection (pictured as DIGITAL jack 1 or DIGITAL jack 3 in this diagram) as well, but you DON'T need to make both. Also, be sure to assign the jacks to the proper component(s) with the DIGITAL INPUT SELECT procedure (see p. 36).

External Decoder Input

In some cases you may need an external decoder to play special analog or DVD sources. If you find you need an external decoder hook one up as shown below, but for most people this component is unnecessary. (See p.47)

The illustration is not applicable to the UK model.



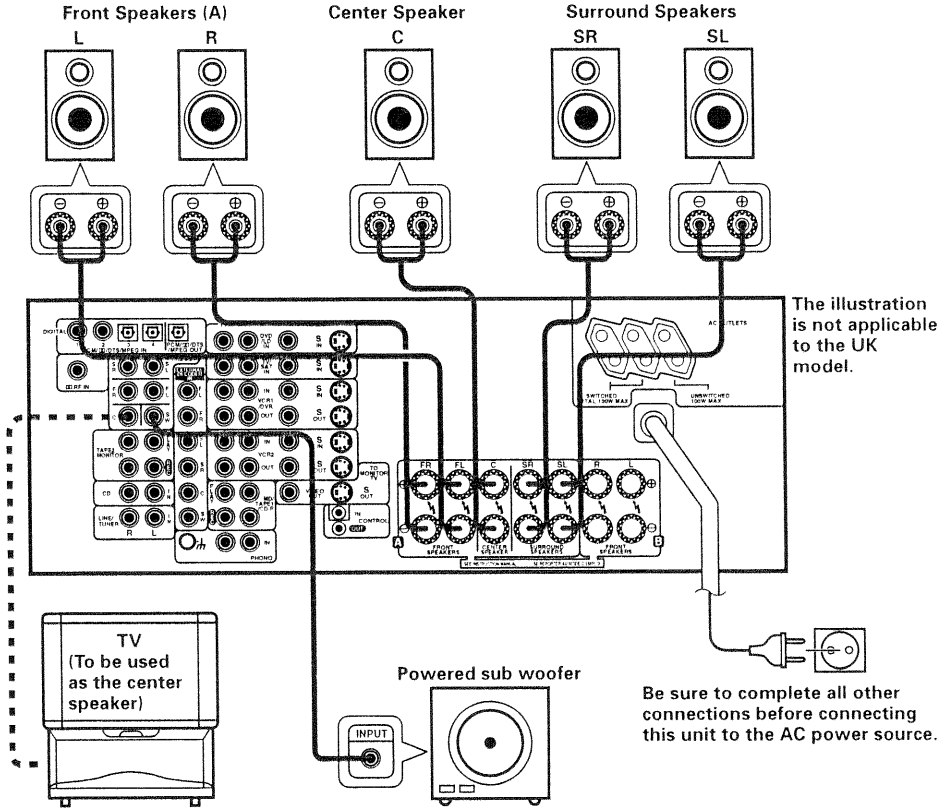
Components equipped with 5.1 channel analog output jacks

Memo You can't use the tuner and phono functions with an external decoder input.

Speakers

A full complement of six speakers is shown here but, naturally, everyone's home set up will vary. Simply connect the speakers you have in the manner described below. The VSA-E07 will work with just two stereo speakers (called "front" speakers in the diagram) but the amplifier is designed to be used with at least three speakers.
Make sure you connect the speaker on the right to the right terminal and the speaker on the left to the left terminal. Also make sure the positive and negative (+/–) terminals on the amplifier match those on the speakers.

Memo The VSA-E07 has two speaker systems, A & B. A is the main system supporting the full complement of surround sound speakers. If you switch on both A & B speaker systems, only front speakers and the sub-woofer will be audible. No sound will come from the center or surround speakers but multi channel sources will be down-mixed to the active speakers so no sound will be lost. Similarly, if you choose just the B system you'll only hear the front speakers connected to the B system and multi channel sources will be down-mixed to these two speakers.
Please use speakers with a nominal impedance rated 6Ω-16Ω.



The illustration is not applicable to the UK model.

Be sure to complete all other connections before connecting this unit to the AC power source.

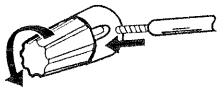
When using the speaker on your TV as the center speaker, connect the CENTER PREOUT jack on this unit to the audio input jack on your TV. In this case, the center speaker shown is unnecessary.

■ Speaker terminals

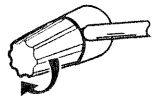
① Twist exposed wire strands together.

10 mm

② Loosen speaker terminal and insert exposed wire.

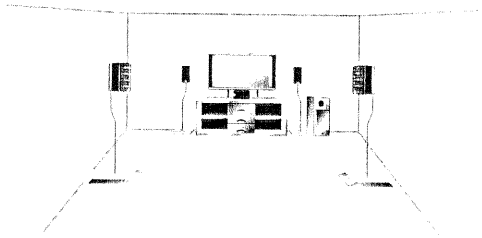


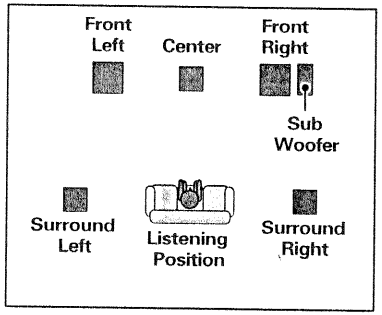
③ Tighten terminal.



Speaker placement

If you have a multiple speaker arrangement the placement of the speakers is extremely important. To achieve the best possible surround sound, install your speakers as shown below. Make sure all speakers are installed securely to prevent accidents and improve sound quality. Be sure to consult your speaker manuals for the best placement of the speakers. Some speakers are designed to be floor-standing but others benefit greatly from speakers stands which raise them off the floor.





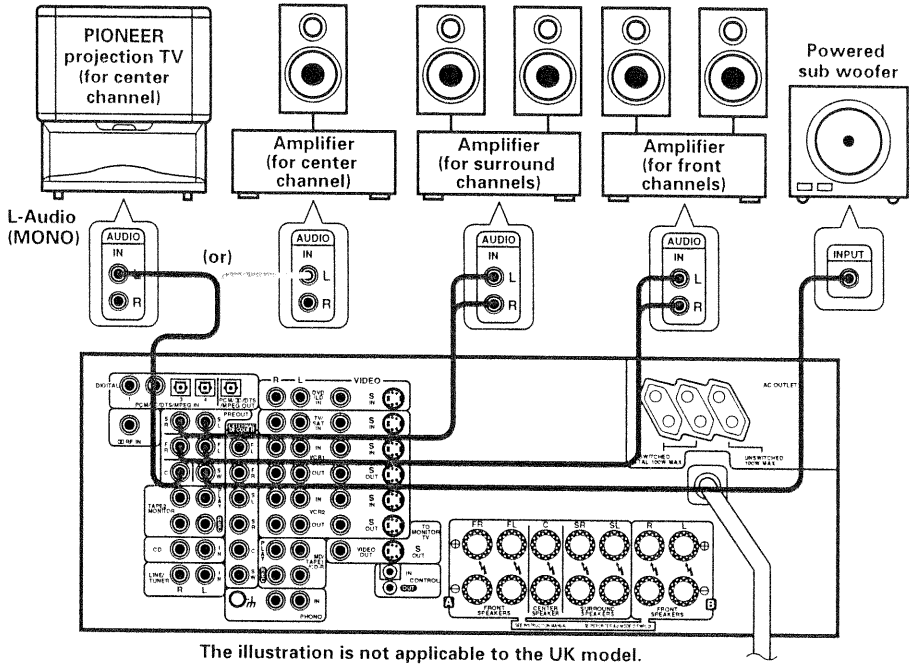
Memo
- Install the left and right front speakers at equal distances from the TV.
- When installing speakers near the TV, we recommend using magnetically shielded speakers to prevent possible interference such as distortion in the color of the TV screen. If you do not have magnetically shielded speakers and notice discoloration of the TV screen, place the speakers farther away from the TV.
- Install the center speaker above or below the TV so that the sound of the center channel is localized at the TV screen.

CAUTION:
When installing the center speaker on top of the TV, be sure to secure it with tape or some other suitable means. Otherwise, the speaker may fall from the TV due to external shocks such as earthquakes, and it may lead to endangering those nearby or damaging the speaker.

- If possible, install the surround speakers slightly above ear level.
- It may be difficult to obtain a cohesive surround effect if the surround speakers are installed farther away from the listening position than the front and center speakers.

Connecting Additional Amplifiers

Although the VSA-E07 has more than sufficient power for any home use, it is possible to add additional amplifiers to your system. If you want to use separate amplifiers to power your speakers, make the connections shown below.



The illustration is not applicable to the UK model.

Power Connections (AC OUTLETS) (Except for the UK model.)

[SWITCHED TOTAL 100 W MAX]

Power supplied through these outlets is turned on and off by the amplifier's POWER switch. Total electrical power consumption of connected equipment should not exceed 100 W.

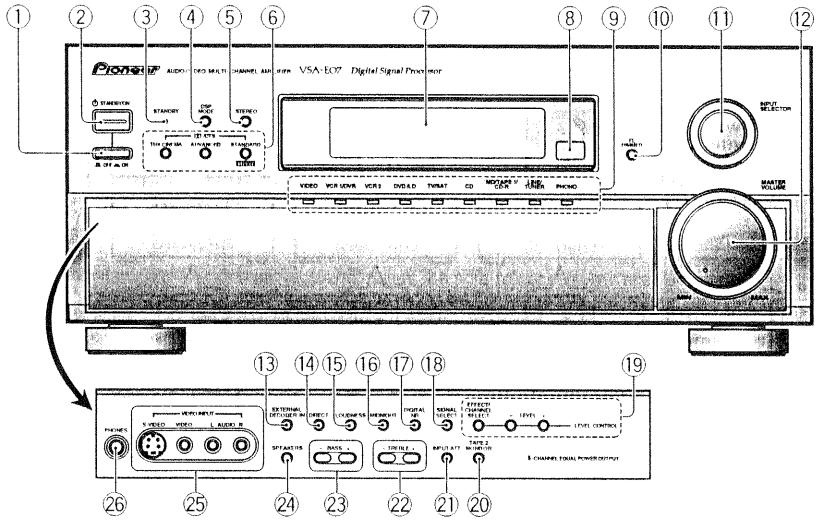
[UNSWITCHED 100 W MAX]

Power flows continually to this outlet, regardless of whether the amplifier is switched ON or OFF. Electrical power consumption of the connected equipment should not exceed 100 W.

CAUTION!
- Do not connect appliances with high power consumption such as heaters, irons, or television sets to the AC OUTLETS in order to avoid overheating or fire risk. This can cause the amplifier to malfunction.
- The equipment should be disconnected by removing the mains plug from the wall socket when not in regular use, e.g. when on vacation.

Front Panel

All the controls on the front panel are explained and/or referenced here. To open the front panel push gently on the lower third of the panel.



① Main power (▬ ON/ ▮ OFF) button

If the button is OFF (▮), the power of the amplifier is shut off and the STANDBY/ON button on the amplifier or the remote control do not function. Pressing the button again will turn the amplifier ON (▬) and the amplifier enters the standby mode. In the standby mode, you can turn on the amplifier using the STANDBY/ON button on the amplifier or the remote control.

② ⏻ STANDBY/ON button

Press to switch the amplifier ON or into STANDBY mode.

③ STANDBY indicator

Lights when the amplifier is in STANDBY mode. (Please note that this amplifier consumes a small amount of power (1.0 W) during the standby mode.)

④ DSP MODE button (See p.41-42)

Press repeatedly to select a DSP sound mode (HALL 1, HALL 2, JAZZ, DANCE, THEATER 1, or THEATER 2). Use these modes to produce surround sound from standard (two channel) stereo sources and create different listening environments.

⑤ STEREO button (See p.41-42)

Press to select the STEREO sound mode. In this mode, sound comes from the front (left and right) speakers only.

⑥ DD/DTS buttons (See p.40,42 & 68-70)

THX CINEMA : Press to select the HOME THX CINEMA mode when listening to Dolby Digital, Dolby Pro Logic or DTS a variety of other sources.
ADVANCED THEATER : Press to select one of the four Advanced Theater modes.
STANDARD (MPEG) : Press repeatedly to select the standard mode and MPEG mode.

⑦ Display (See p.18)

⑧ Remote sensor

Point the remote control toward the remote sensor to operate the amplifier.

⑨ Source indicators

Shows the source currently selected.

⑩ FL DIMMER button (See p.49)

Use to adjust the brightness of the main display.

⑪ INPUT SELECTOR dial

Turn to select a source component. The source indicators show the current component:
DVD/LD : DVD player or LaserDisc player.
TV/SAT : TV tuner or satellite tuner.
CD : Compact Disc player.
MD/TAPE 1/CD-R : Tape deck or Mini Disc recorder connected to MD/TAPE 1/CD-R inputs/ outputs.
LINE/TUNER : FM/AM tuner.
PHONO : Turntable.
VIDEO : Video camera (etc.) connected to the VIDEO INPUT on the front panel.
VCR 1/DVR : Video cassette recorder connected to VCR 1/DVR inputs.
VCR 2 : Video cassette recorder or other component connected to VCR 2 inputs.

⑫ MASTER VOLUME

Adjusts the overall amplifier volume.

⑬ EXTERNAL DECODER IN button (See p.47)

Use to hook up an external component that can decode other types of signals and input them into the amplifier.

⑭ DIRECT button (See p.49)

Switches DIRECT playback on or off. Use to bypass the tone controls and channel level for the most accurate reproduction of a program source. It will automatically put the amplifier in STEREO mode for the function being used for DIRECT playback.

⑮ LOUDNESS button (See p.48)

Switches the LOUDNESS mode on or off.

⑯ MIDNIGHT button (See p.47)

Switches the MIDNIGHT listening mode on or off.

⑰ DIGITAL NR button (See p.46)

Switches the DIGITAL NR on or off (STEREO mode only).

⑱ SIGNAL SELECT button (See p.45)

Use to select the signal from the digital components.
Press SIGNAL SELECT repeatedly to select one of the following:
ANALOG : To select an analog signal.
DIGITAL : To select an optical or coaxial digital signal.
AC-3 RF : To select an AC-3 RF signal.
AUTO : This is the default. If there are both analog and digital input signals, the amplifier automatically selects the best possible signal.

⑲ EFFECT/CHANNEL SELECT LEVEL(–/+) buttons

EFFECT : Use these buttons to increase or decrease the amount of effect applied in a DSP or Advanced Theater mode. When the amount of effect is increased in a DSP/Advanced Theater mode, the characteristics of that mode become stronger and more noticeable. The scale ranges from 10-90 with 70 as the default setting. First turn on the DSP or ADVANCED Theater you want (by pressing the DSP MODE/ADVANCED button until you get the mode) and then increase or decrease the amount of effect.
CHANNEL : You may want to adjust the channels when listening to some sound sources. Use this button to select the channel you want to adjust.
–/+ : Use these buttons to select the amount of effect in a sound mode or to adjust the channel level when making surround sound settings.

⑳ TAPE 2 MONITOR button (See p.62)

Selects the tape deck (MD recorder, etc.) connected to the TAPE 2 MONITOR inputs/ outputs. Allows monitoring of a recording as it's being made.

㉑ INPUT ATT button

Use to lower the input level of an analog signal that is too powerful, thus causing the amplifier to distort (the overload indicator will light furiously).

㉒ TREBLE (–/+) button (See p.48)

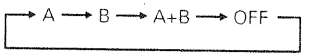
Use to adjust the high frequencies.

㉓ BASS (–/+) button (See p.48)

Use to adjust low frequencies.

㉔ SPEAKERS (A/B) buttons

A is the primary setting. It plays all speakers hooked up to the A system. A & B setting only plays the front speakers of both the A & B systems and the sub-woofer. Multi channel sources will be down-mixed to these speakers so no sound will be lost. B setting only plays the front speakers connected to the B system and multi channel sources will be down-mixed to these two speakers.



㉕ VIDEO INPUT jacks (See p.9)

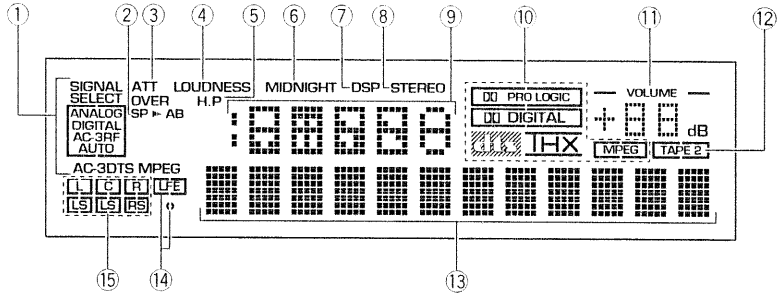
S-VIDEO : Video input for connecting a video camera (etc.), that has an S-Video out.
VIDEO / AUDIO (L/R) : Video input for connecting a video camera, etc. that has standard video/audio outputs.

㉖ PHONES jack

Connect headphones for private listening (no sound will be heard through the speakers).

Display

All the display information is explained and /or referenced here.



① SIGNAL SELECT indicators

Light to indicate the type of input signal selected for the current component (see "Front Panel", ⑱, SIGNAL SELECT).
ANALOG : Lights when analog signals are assigned.
DIGITAL : Lights when digital audio signals are selected.
AC-3 RF : Lights when AC-3 RF signals are assigned.
AUTO : Lights when the receiver is set to select the input signal automatically.
AC-3 : Lights when a source with Dolby Digital signals is played.
DTS : Lights when a source with DTS audio signals is played.
MPEG: Blinks when the MPEG mode is selected, and lights when a source with MPEG audio signals is played.

② Speaker indicators

Light to indicate the current speaker system (see "Front Panel", ㉔, SPEAKERS (A/B)).
SP ▷ A : Lights when speaker system A is selected.
SP ▷ B : Lights when speaker system B is selected.
SP ▷ AB : Lights when speaker systems A & B are selected.

③ Analog level indicators

OVER : If "ANALOG" is selected in SIGNAL SELECT, this indicator lights to show that an excessively strong signal is being processed. When this occurs, press INPUT ATT on the front panel to attenuate (lower) the signal. Also, when "DIGITAL" is selected in SIGNAL SELECT, this indicator lights to show that a source containing an excessive amount of information is being processed. If this occurs, see p. 42.
ATT : Lights when INPUT ATT is used to reduce the level of the input signal (available in ANALOG mode only).

④ LOUDNESS indicator (See p.48)

Lights when the LOUDNESS mode is on.

⑤ H.P (headphones)

Lights when headphones are connected to the PHONES jack (speakers A and B turn off automatically).

⑥ MIDNIGHT indicator (See p.47)

Lights when the MIDNIGHT listening mode is on.

⑦ DSP indicator (See p.41-42)

Light when a DSP or Advanced Theater mode is selected.

⑧ STEREO indicator (See p.41-42)

Lights when a STEREO mode is selected.

⑨ Function indicator

Displays the function.

⑩ DD Surround/dts mode indicators

DD DIGITAL : When the DD Surround/dts mode on the amplifier is on, this indicator lights to indicate playback of a Dolby Digital signal. However, DD PRO LOGIC lights during 2 channel playback of Dolby Digital.
DD PRO LOGIC : When the DD Surround/dts mode on the amplifier is on, this indicator lights during 2 channel playback. (Both B or A+B speaker systems turn off automatically when headphones are plugged.)
dts : Lights when DTS signals are input.
THX: Lights when the HOME THX CINEMA mode is selected.
MPEG: Lights when the MPEG mode is selected.

⑪ MASTER VOLUME indication

Displays current level of master volume.

⑫ TAPE 2 indicator

Lights when the TAPE 2 monitor is on.

⑬ Character display

Displays sound modes, general information, etc.

⑭ LFE indicator

LFE (Low Frequency Effects) indicator lights to indicate that the program source contains an LFE channel. The indicator under the LFE lights during actual playback of the LFE signals (LFE signals are not present in all parts of the soundtrack).

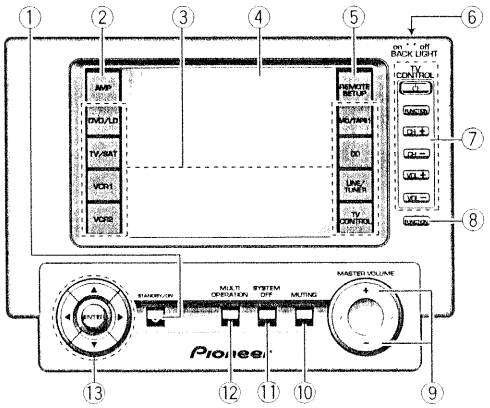
⑮ Program Format indicator

When a Dolby Digital or DTS signal is input, the following indicators light to show the channels being played back.
L : Left front*1*2, **C :** Center*1, **R :** Right front*1*2,
LS : Left surround*1, **S :** Surround (mono)*2,
RS : Right surround*1
*1: Indicates 5.1ch Dolby Digital or DTS playback.
*2: Indicates Dolby surround playback.

Remote Control

These pages describe the buttons on the remote control used to operate the amplifier. Since the screen on this LCD remote control changes when you select a different function, explanations of buttons for controlling other components/functions can be found in the sections for those components/functions.

Memo To turn on the remote control touch it anywhere on the screen.



① ⏻ **STANDBY/ON button**
Press to turn power of the amplifier on or to STANDBY (off).

② **AMP button**
Press to switch the remote control into amplifier mode or to get amplifier screens.

③ **Function buttons**
These buttons are the basic controls that switch the mode of the amplifier and allow you to control your other components.
DVD/LD : Press to switch the remote control into DVD/LD mode.
TV/SAT : Press to switch the remote control into TV/SAT (satellite tuner) mode.
VCR 1 : Press to switch the remote control into VCR 1 mode.
VCR 2 : Press to switch the remote control into VCR 2 mode.
MD/TAPE 1 : Press to switch the remote control into MD/TAPE 1 mode.
CD : Press to switch the remote control into CD mode.
LINE/TUNER : Press to switch the remote control into TUNER mode.
TV CONTROL : Press so that the remote control can operate the TV CONTROL commands.

④ **REMOTE CONTROL screen (See p.21)**

⑤ **REMOTE SETUP button.**
Use to customize the remote control functions and the remote control itself. (See "Remote Control of Other Components" starting on p.50)

⑥ **BACK LIGHT switch**
Switch the BACK LIGHT on or off (see p.7)

⑦ **TV CONTROL buttons**
The following buttons are used to control the TV only and can be used once they are preset to control your TV.
⏻ : Press to turn the power of the TV on/off.
FUNCTION : Press TV FUNC to select the TV's input.
CH +/– : Use these buttons to change the channel of the TV.
VOL +/– : Press to control the volume of the TV.

⑧ **FUNCTION button**
Press to select a source. The button will cycle through all the possible sources.

⑨ **MASTER VOLUME button**
Use to raise or lower the volume of the receiver.

⑩ **MUTE button**
Press to mute or restore the volume.

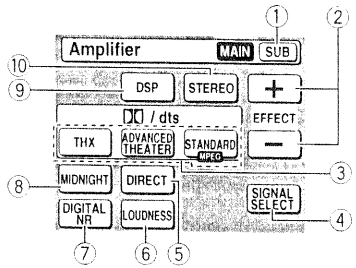
⑪ **SYSTEM OFF button (See p.65-66)**
This button turns off components in two ways. First, when pressed it will turn off all PIONEER components. Secondly, any component that has programmed into the SYSTEM OFF settings will be turned off.
For example : If you programmed power off in the SYSTEM OFF settings for your TV and VCR, pressing the SYSTEM OFF button will turn off these components even if they are not PIONEER products.

⑫ **MULTI OPERATION button**
Use this button to start the MULTI OPERATION mode. See p. 63 for how to program and use the MULTI OPERATION mode.

⑬ **△/▽/◁/▷ ENTER buttons**
These buttons can be used for a variety of operations. In the SYSTEM SETUP menu, the △/▽ buttons can be used to adjust CHANNEL DELAY or CHANNEL LEVEL.
The △/▽ buttons, pressed simultaneously, can be use to lock or unlock a setting (see p.54).
These buttons are also used to control the DVD menu for the DVD remote control screen.

Basic Amplifier LCD Screens

Amplifier MAIN Screen



① **Amplifier SUB button**
Press this button to select the amplifier sub screen (on the page 22) when the remote control is on the amplifier main screen.

② **EFFECT +/– button**
Use these buttons to increase or decrease the amount of effect applied in a DSP or Advanced Theater mode. When the amount of effect is increased in a DSP/Advanced Theater mode the characteristics of that mode become stronger and more noticeable. The scale ranges from 10-90 with 70 as the default setting. First turn on the DSP/Advanced Theater mode you want (by pressing the DSP/Advanced Theater button until you get the mode) and then increase or decrease the amount of effect.

③ **DD/dts buttons (See p.40,42 & 68-70)**
Press these buttons to put the amplifier in the selected surround sound mode.

④ **SIGNAL SELECT button (See p.45)**
Press SIGNAL SELECT repeatedly to select one of the following:
ANALOG : To select an analog signal.
DIGITAL : To select a digital signal.
AC-3 RF : To select an AC-3 RF signal.
AUTO : This is the default. If there are both analog and digital input signal, the amplifier automatically selects digital.

⑤ **DIRECT button**
Switches DIRECT playback on or off. Use to bypass the tone controls and channel level for the most accurate reproduction of a program source. It will automatically put the amplifier in STEREO mode for the function being used for DIRECT playback.

⑥ **LOUDNESS button (See p.48)**
Switches the LOUDNESS mode on or off.

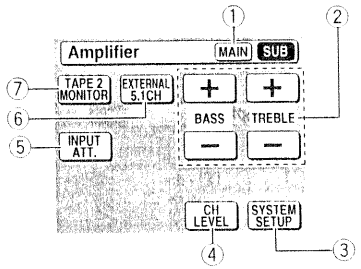
⑦ **DIGITAL NR button (See p.46)**
Switches the DIGITAL NR on or off (STEREO mode only).

⑧ **MIDNIGHT button (See p.47)**
Switches the MIDNIGHT listening mode on or off.

⑨ **DSP button (See p.41-42)**
Press repeatedly to select a DSP sound mode.

⑩ **STEREO button (See p.41-42)**
Press to select the STEREO sound mode. In this mode, sound comes from the front (left and right) speakers only.

Amplifier SUB Screen



① Amplifier MAIN button
Press this button to select the amplifier main screen (on the page 21) when the remote control is on the amplifier sub screen.

② BASS & TREBLE (+/–) buttons (See p.48)
Use to adjust the high and low frequencies (STEREO mode only).

③ SYSTEM SET UP button
Use to set up the speaker and sound systems. For more information see "Setting Up for Surround Sound " starting on p. 26.

④ CHANNEL LEVEL button (See p.31-32)
Use this feature to adjust the level of individual speakers during playback of a source.

⑤ INPUT ATT button
Use to lower the input level of an analog signal that is too powerful, thus causing the amplifier to distort (the overload indicator will light furiously).

⑥ EXTERNAL 5.1 CHANNEL button (See p.47)
Use to hook up an external component that can decode other types of signals and input them into the VSA-E07.

⑦ TAPE 2 MONITOR button (See p.62)
Selects the tape deck (or MD recorder, etc.) connected to the TAPE 2 MONITOR inputs/ outputs. Allows monitoring of a recording as it's being made.

On Screen Display

There are a number of possible ways to hook up the amplifier to your video components, like a DVD player, and hook up to your amplifier to your TV, but some of them won't allow you to use the on-screen display of this unit. To avoid this one simply needs to follow two rules.

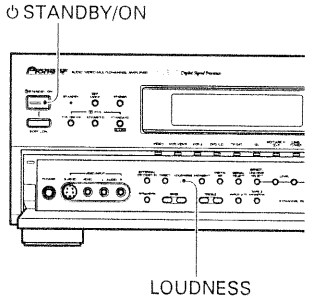
① Always use the same type of video cords to hook up your video components to the amplifier as you use to hook up the amplifier and your TV. For example, if you use composite video cords to hook up your DVD and the amplifier, use composite video cords to hook up the amplifier to your TV. If you use S video cords to hook up your DVD and the amplifier, use S video cords to hook up the amplifier to your TV.

② Always make sure your TV is set to the appropriate input channel (for example, video 1). Your TV may have a number of input channels and if you don't select the proper one you won't be able to use this amplifier's on-screen display, or, in fact, see any picture from this amplifier at all. If you are unsure how to choose an input channel for your TV, refer to the manual which came with your TV.

You might, for example, use both composite and S video cords to hook up your video components with this amplifier and then use composite video cords to hook up this amplifier to your TV. This arrangement would still NOT let you see the on screen displays from this amplifier on your TV. The best idea is just to use one type of video cord for all your video component and TV hook ups.

Switching video system between PAL and NTSC

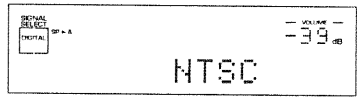
This amplifier is able to use two types of video systems for its OSD (on screen display) and you need to set the amplifier to the type of video system you have, either PAL or NTSC. If you do not match the system on the amplifier with your home system no OSD will appear on your TV. People with multi-system TVs, don't need to worry about changing the setting. If necessary, follow the instructions below to switch the type of video system.



1 **Put the amplifier in the STANDBY mode.**

2 **While holding down the LOUDNESS button press the STANDBY/ON button.**
The video system type, either "PAL" or "NTSC", appears in the display. It will be shown for about seven seconds and then the amplifier returns to normal operating mode.
Be careful to press the LOUDNESS button and NOT the DIRECT button, which will accidentally clear all your speaker settings (see warning p.69).

When a PAL system is selected

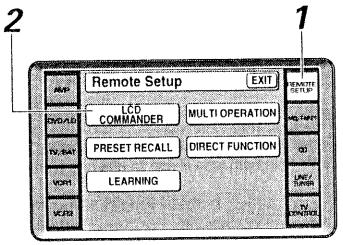


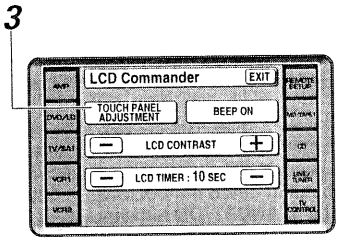
When a NTSC system is selected

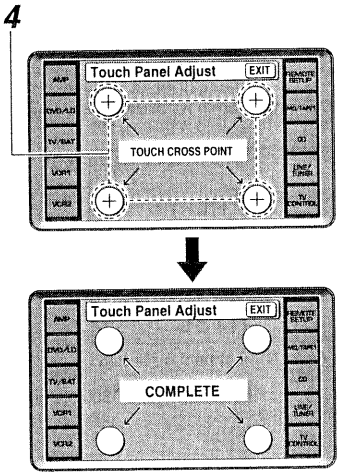
Memo When using the PAL setting the OSD does not get displayed in color.

Setting Up the Remote Control

Since this remote is based on LCD screens, you should try and get used to the touch-sensitive nature of the buttons as well as the way in which different screens control different operations. You can move between the different screens with the function buttons on the left and right and/or certain buttons within each screen. The EXIT button will always return the remote control to the previous screen. In the explanations below you must complete the TOUCH PANEL ADJUSTMENT setup to use the remote control properly. After that you can adjust various basic settings to suit your personal preferences.







1 Press the REMOTE SETUP button on the remote control.

Access to the different setup modes appear on your remote control screen.

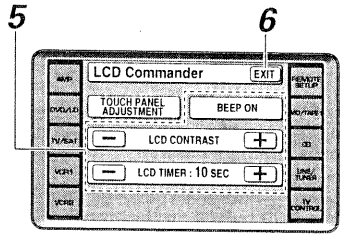
2 Press the LCD COMMANDER button.

The different types of possible adjustments will appear on the screen.

3 You must align the touch panel to make sure the remote control responds properly when you touch it. Press the TOUCH PANEL ADJUSTMENT button.

4 Press each cross point in the middle to align the remote control touch panel with the LCD panel underneath.

This adjustment will make sure your remote control is calibrated correctly.
When you've touched all four cross points the screen will show the word "COMPLETE" and automatically return to the LCD COMMANDER screen.



5 Decide which other adjustments you'd like to make and press those buttons. The different possibilities are:

BEEP ON : When you have sent a command (pushed a button) the remote control will beep once if the command is completed or beep twice if the command is not possible. You can turn this function ON or OFF by pushing this button (the default setting is ON).

LCD CONTRAST : You can lighten or darken the contrast on the remote control screen. Use the – /+ buttons to change the contrast.

LCD TIMER : In order to save the battery a timer will automatically turn the remote control off after a set amount of time if no commands are entered. You can choose how long the idle remote control will stay on before the timer turns it off. You can set this function in a range of 10-60 seconds. The default setting is 10 seconds. Use the – /+ buttons to adjust the number of seconds for the timer setting.
(SYSTEM SETUP screens and REMOTE SETUP screens, as well as the screens within those operations, are all fixed to stay on 60 seconds. If no command is entered they will turn off after 60 seconds.)

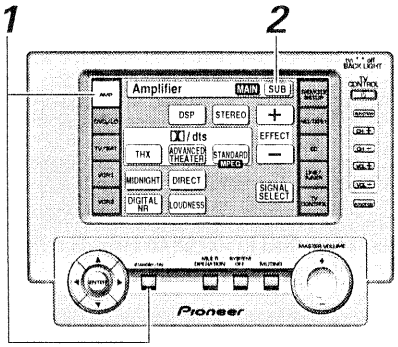
6 When finished with adjustments press the EXIT button repeatedly to go back to the Amplifier screen.

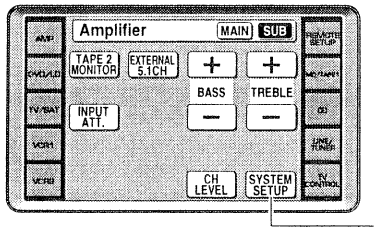
Memo You can press the EXIT button anytime to go back a screen or repeatedly to escape this set up mode.

Before operating the amplifier, be sure to press the main power button on the front panel to turn the power ON (⏻).

Setting Up for Surround Sound

To ensure the best possible surround sound, complete the following setup operations. You only need to make these settings once (unless you change the placement of your current speaker system or add new speakers, etc.). These set up operations use your TV to display the settings and choices so be sure your TV and amplifier are properly hooked up.





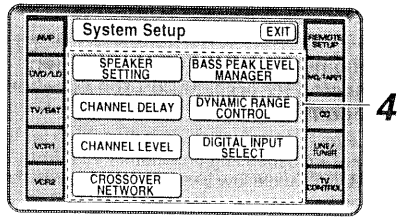
1 Turn on the amplifier and your TV, press AMP on the remote control.

Make sure your TV is set to the amplifier.

2 Press the SUB button on the amplifier screen.

3 Press SYSTEM SETUP button.

Access to the different set up modes appear on your remote control screen. The set up possibilities will also appear on your TV.



4 Follow the order below to set up your speakers for surround sound .

In each mode, the current settings are displayed automatically. We suggest you adjust all these settings when you first hook up the amplifier. That gets them out of the way and you won't need to return to this setting mode unless you change your home set up by adding new speakers (etc.). The sound set up modes explained here are:

SPEAKER SETTING (See p.28-29)
Use to specify the type and number of speakers you connected.

CHANNEL DELAY (See p.30)
Set up the all your speakers for the most realistic surround sound. Adding a slight delay to some speakers enhances sound separation and is particularly important for achieving a surround sound effect. You need to figure out the distance from your listening position to your speakers to add the proper delay.

CHANNEL LEVEL (See p.31-32)
Use to balance the volumes of your different speakers.

CROSSOVER NETWORK (See p.33)
This feature lets you select which bass frequencies will be sent to the sub woofer or front speakers when set to large.

BASS PEAK LEVEL MANAGER (See p.34)
Dolby Digital and DTS audio sources include ultra-low bass tones. Set the bass peak level as needed to prevent the ultra-low bass tones from distorting the sound from the speakers.

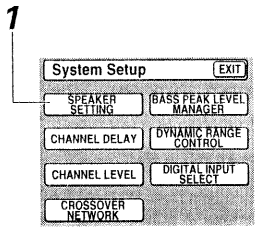
DYNAMIC RANGE CONTROL (See p.35)
This feature makes possible excellent surround sound effects when listening to Dolby Digital sources at low volumes.

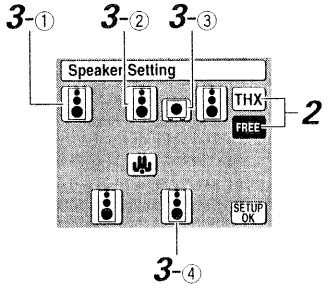
DIGITAL INPUT SELECT (See p.36-37)
In order to use your digital components you must match the numbered digital input buttons with the numbered digital jacks used by your digital components.

Memo When you press the SETUP OK button to complete one of the settings explained on the right, a mark consisting of four curved lines appears on the top right of the remote control. This means the remote control is sending the commands to the amplifier. If the amplifier has gotten the commands the word "RECEIVED" appears in the display on the amplifier. During this process you must keep the remote control pointed at the amplifier so the command can be communicated from the remote control to the amplifier.

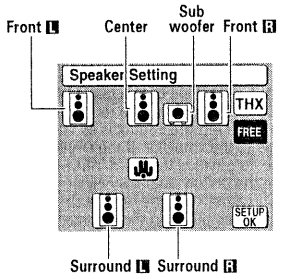
SPEAKER SETTING

The following steps show you how to select the correct set up for the type and number of speakers you connected. If continuing from the previous page go to step 1. If starting fresh, complete steps 1-3 on p.26 first.





Memo To confirm which speakers represent, for example, FRONT or CENTER speakers in the LCD display see the diagram below.



1 Press the SPEAKER SETTING button.

2 Select a speaker setting mode (THX or FREE).

If you connected a complete set of THX speakers
Select THX and skip to step 4.

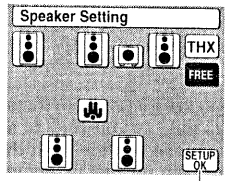
3 Specify the number and type of speakers you connected by pressing on the speakers in the diagram.

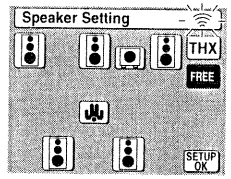
① Select Large (three dots) or small (two dots) for the front speakers depending on whether your front speakers can handle low bass sounds and whether or not you hooked up a sub woofer.
② Select or deselect center speaker depending on whether or not you hooked one up. Also choose the size, large or small.
③ Select or deselect sub woofer depending on whether or not you hooked one up. Also select PLUS if you have a sub woofer and want extra bass sound
④ Select or deselect surround (rear) speakers depending on whether or not you hooked them up. Also choose large or small.

Depending on your choices the sound will be routed differently. For more information see below.

FRONT (default setting is LARGE)
- Select small to send bass frequencies to the sub woofer.
- Select large if your speakers will reproduce bass frequencies effectively or if you did not connect a sub woofer.
(If you select small for the front speakers the sub woofer will automatically be switched YES. Also, the center and surround speakers cannot be set to large if the front speakers are set to small. In this case, all bass frequencies are sent to the sub woofer.)

CENTER (default setting is LARGE)
- Select large if your speaker will reproduce bass frequencies effectively.
- Select small to send bass frequencies to the other speakers or sub woofer.
- If you did not connect a center speaker, deselect it. In this case, the center channel is output from the front speakers.





SURROUND (default setting is LARGE)
- Select large if your speakers will reproduce bass frequencies effectively.
- Select small to send bass frequencies to the other speakers or sub woofer.
- If you did not connect surround speakers deselect them. In this case, the sound of the surround channels is output from the front and center speakers.

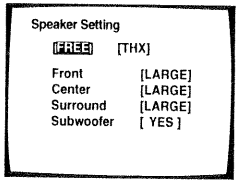
SUB WOOFER (default setting is YES)
- Leave it selected if you connected a sub woofer.
- If you did not connect a sub woofer deselect it. In this case, the bass frequencies are output from the front or surround speakers.
- Choose the PLUS setting if you want stronger reproduction of deep bass sounds.
- If you select PLUS the bass frequencies that would normally come out the front and center speakers are all routed to the sub woofer.

4 Press the SETUP OK button to return to the SYSTEM SETUP menu.

Hold the remote control pointed towards the amplifier until you see the "RECEIVED" display on the amplifier.

If "ERROR" flashes in the display, perform the setup operations from the first step again.

These settings will be displayed on your TV.



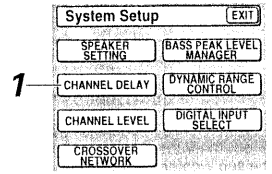
Next, proceed to CHANNEL DELAY below.

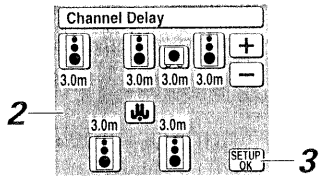
If you want to change a setting before proceeding simply press the button of the speaker you want to change.

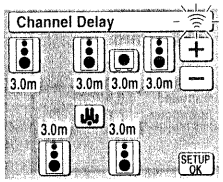
Memo If you have a sub woofer and like lots of bass, it may seem logical to select LARGE for your FRONT speakers and leave the sub woofer selected. This may not, however, yield the best bass results. Depending on the size and shape of your room you may actually experience a decrease in the amount of bass due to what is called "low frequency cancellations." If you have a sub woofer, listen to the bass response with the FRONT speakers set to LARGE and SMALL alternatively and let your ears judge which sounds best.
The safest option in this case is to route all the bass sounds to the sub woofer by selecting SMALL for the FRONT speakers.

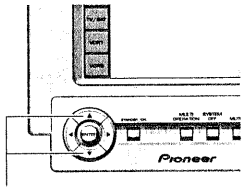
CHANNEL DELAY

Adding a slight delay to some speakers is necessary to achieve a surround sound effect. You need to figure out the distance from your listening position to your speakers to add the proper delay. The following steps show you how to set the delay time for each channel by specifying the distances from your listening position to each speaker. Once you specify the speaker distances, the receiver calculates the correct delay times automatically. If continuing from SPEAKER SETTING go to step 1. If starting fresh, complete steps 1-3 in "Setting Up for Surround Sound" (p.26) first.







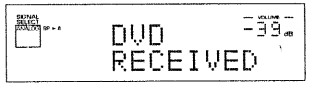


△/▽ buttons

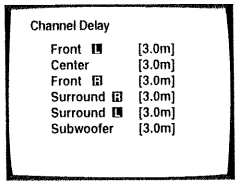
1 Press the CHANNEL DELAY button.
The CHANNEL DELAY speaker settings will appear on your remote control screen.

2 Select each speaker by pressing its button and use the +/– (or △/▽) buttons to add or subtract the distance in meter that the speaker is from your normal listening position.
Adjust the speaker distance in 0.3m increments from 0.3m to 9.0m.
The default setting is 3.0m.

3 Press the SETUP OK button to return to the SYSTEM SETUP menu.
Hold the remote control pointed towards the amplifier until you see the "RECEIVED" display on the amplifier. If "ERROR" flashes in the display, perform the setup operations from the first step again.



These settings will be displayed on your TV.



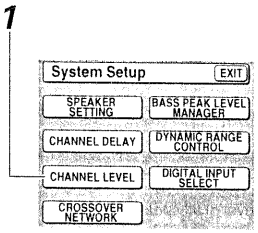
Next, proceed to CHANNEL LEVEL below.

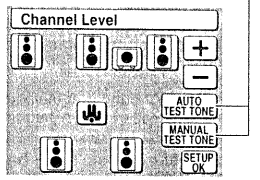
If you want to change a setting before proceeding
Simply select the speaker you want to change.

Memo You can use the △/▽ buttons at the bottom of the remote control instead of the +/– buttons

CHANNEL LEVEL

The following steps show you how to balance the sound output level of your speakers. Proper speaker balance is essential for obtaining high quality surround sound. If continuing from CHANNEL DELAY go to step 1. If starting fresh, complete steps 1-3 in "Setting Up for Surround Sound" (p.26) first.

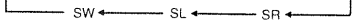




1 Press the CHANNEL LEVEL button.
The CHANNEL LEVEL settings will appear on your remote control screen.

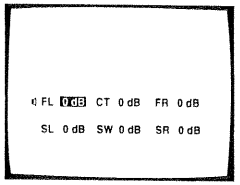
2 Select a test tone mode by pressing one of the TEST TONE buttons. Output the TEST TONE.

AUTO (automatic TEST TONE)
This mode switches the test tone between each speaker automatically. The automatic test tone is output in the following order :



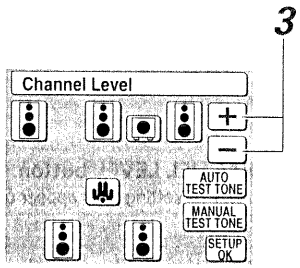
MANUAL (manual TEST TONE)
This mode lets you switch the test tone between each speaker manually.

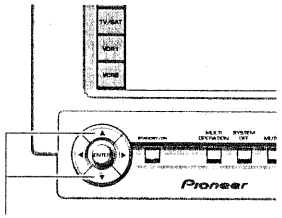
NOTE : Be prepared! The test tone is output at a high volume level.
MASTER VOLUME rotates to the reference position (0 dB) and the display on the receiver flashes TEST TONE. After a few seconds the test tone is output.

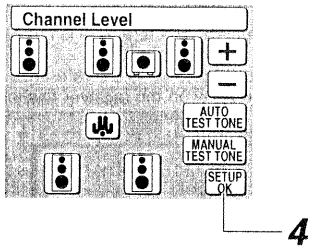


Any time you want to exit the process
Press the SETUP OK button.

Memo
- Be careful, if you touch one of the speaker buttons by accident the TEST TONE will automatically sound from each speaker.
- If your sub woofer has a volume control, set it to the middle position before doing these operations.







3 Using the remote control display, follow the instructions below to adjust the speaker levels so that you hear the test tone at the same volume from each speaker when seated in your normal listening position.

NOTE : The volume of the sub woofer tends to sound lower than it actually is. You may need to adjust the level after testing with an actual soundtrack.

In AUTO mode

① Use the +/– (or △/▽) buttons to adjust the level of the speaker outputting the test tone. The tone will automatically switch between speakers after sounding for 2-3 seconds.
② Adjust the level of all speakers.

In MANUAL mode

① Use the +/– (or △/▽) buttons to adjust the level of the first (the front left) speaker.
② Press the button on the touch panel for the next speaker.
③ Repeat ① and ② for each speaker.

If you are using a Sound Pressure Level (SPL) meter
Take the readings from your main listening position and adjust the level of each speaker to 75 dB SPL (C-weighted/slow model).

Memo You can use the △/▽ buttons at the bottom of the remote control instead of the +/– buttons

4 When all the speaker levels have been set, press the SETUP OK button to return to the SYSTEM SETUP menu.

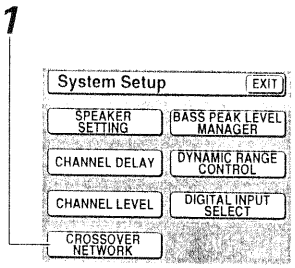
The display on the amplifier will say RESUME and the MASTER VOLUME will return to its original position.

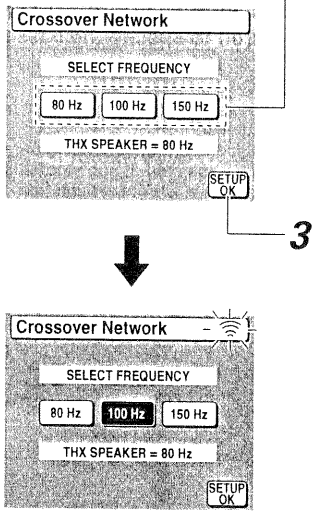
Next, proceed to CROSSOVER NETWORK below.

Memo Note that it is also possible to set channel levels temporarily. Go to the Amplifier SUB screen and press the CH LEVEL button. Then follow the same procedure as explained on this page. This function is designed to be used when you want to change the levels temporarily to hear one speaker louder. Using this method you can set speaker levels in different modes, such as DD Surround/dts, STEREO, EXTERNAL DECODER and each DSP mode, independently. You should return the settings to their original state when done. Doing the set up procedures on this page will erase any temporary/independent level settings that have been made.

CROSSOVER NETWORK

The following steps show you how to adjust the crossover network. The crossover network is the frequency at which the system divides the signal and sends the different parts (high ,mid, low) to different speakers. Speaking precisely, this setting sets the cutoff point for the bass frequencies rerouted from your SMALL speakers to your sub woofer or speaker set to LARGE. If continuing from CHANNEL LEVEL go to step 1. If starting fresh, complete steps 1-3 in "Setting Up for Surround Sound" (p.26) first.





1 Press the CROSSOVER NETWORK button.

2 Choose a crossover frequency.

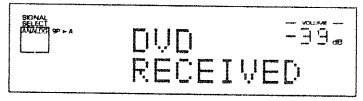
Setting speakers to SMALL in SPEAKER SETTING sends the respective channel's bass frequencies to the sub woofer or the speakers you have selected as LARGE. This function lets you determine which frequencies will be sent to the sub woofer or LARGE speakers. Press 80 Hz, 100 Hz, or 150 Hz. The default setting is 80Hz.

80 Hz
Sends bass frequencies below 80 Hz to the sub woofer (or LARGE speakers).
100 Hz
Sends bass frequencies below 100 Hz to the sub woofer (or LARGE speakers).
150 Hz
Sends bass frequencies below 150 Hz to the sub woofer (or LARGE speakers).
As noted on the LCD screen the THX setting is 80. Select this setting if you have THX approved SMALL speakers.

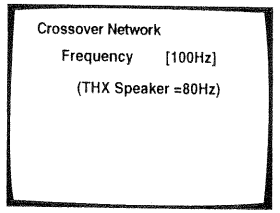
Experiment with the different settings to see which sounds best to you.

3 Press the SETUP OK button to return to the SYSTEM SETUP menu.

The display on the amplifier reads RECEIVED.
If "ERROR" flashes in the display, perform the setup operations from the first step again.



This information will be displayed on your TV.



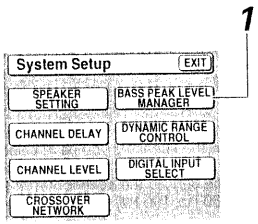
Next, proceed to BASS PEAK LEVEL MANAGER below.

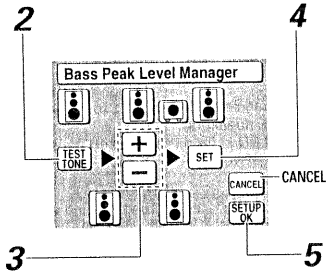
If you want to change a setting before proceeding simply select a new crossover frequency.

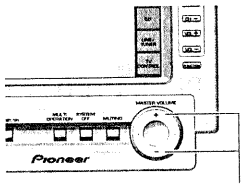
SET UP

BASS PEAK LEVEL MANAGER

The LFE (Low Frequency Effect) channel in Dolby Digital or DTS program sources can produce heavily concentrated ultra-low bass tones that may exceed the capabilities of your speaker system. The following steps show you how to set the peak level for the ultra-low bass (LFE) channel. If continuing from CROSSOVER NETWORK go to step 1. If starting fresh, complete steps 1-3 in "Setting Up for Surround Sound" (p.26) first.

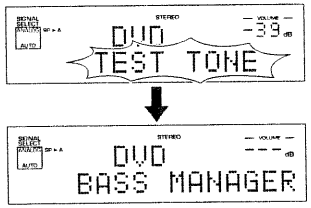






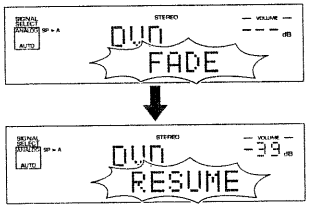
1 Press the BASS PEAK LEVEL MANAGER button.

2 Press the TEST TONE button.
The MASTER VOLUME rotates to MIN (---dB).



3 Use the +/– buttons (or the MASTER VOLUME +/– on the bottom right of the remote control) to specify the bass peak level.
① Raise the level gradually.
② Set the bass peak level at the point just before the tone starts to distort.
A test tone will sound or not depending on which speakers you have selected. If sub woofer is YES (or on PLUS) the test tone will only sound from the sub woofer. If the sub woofer is off and the front and surround speakers are set to large, front and surround speakers will sound the test tone.

4 Press the SET button to input the level.
The display on the amplifier will say RESUME and the MASTER VOLUME will return to its original position.



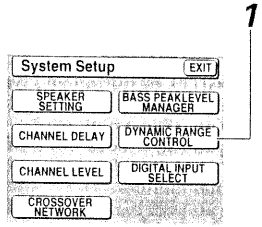
5 Press the SETUP OK button.
You may need to experiment with different Dolby Digital sources before you can get the BASS PEAK LEVEL set correctly.

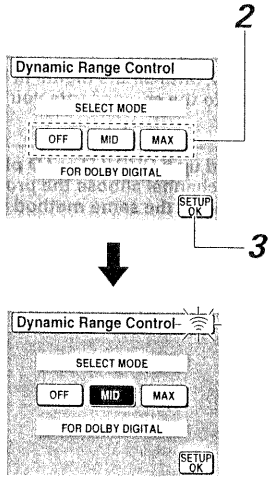
If you want to change a setting before proceeding
Use the +/– buttons (or the MASTER VOLUME +/–) to change the BASS PEAK LEVEL.

Memo If you press the CANCEL button no settings are input to the amplifier but the screen remains on the remote control. To escape the screen you must press the SETUP OK button.

DYNAMIC RANGE CONTROL

This feature makes it possible to enjoy full surround sound effects on Dolby Digital sources even at low volumes. It does this by compressing the dynamic range. Dynamic range is the difference between the loudest and the softest sounds in any given signal. Compressing the range plays sounds so the quieter ones are audible and the louder ones don't get distorted or become overpowering. This feature only applies to Dolby Digital sources but the MIDNIGHT listening mode (explained on p.40) accomplishes the same end for a variety of sources. If continuing from BASS PEAK LEVEL MANAGER go to step 1. If starting fresh, complete steps 1-3 in "Setting Up for Surround Sound" (p.26) first.



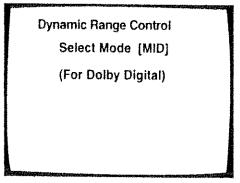


1 Press the DYNAMIC RANGE CONTROL button.

2 Choose the amount of DYNAMIC RANGE CONTROL, OFF, MID or MAX, you want.
The default setting is OFF.

3 Press the SETUP OK button.
Hold the remote control pointed towards the amplifier until you see the "RECEIVED" display on the amplifier. If "ERROR" flashes in the display, perform the setup operations from the first step again.

This information will be displayed on your TV.



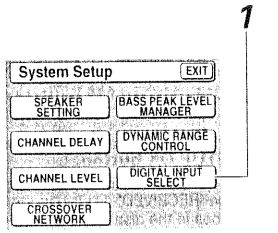
If you want to change a setting before proceeding
Choose a new DYNAMIC RANGE CONTROL setting.

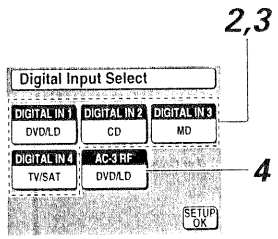
You may need to experiment with different Dolby Digital sources before you can use the DYNAMIC RANGE CONTROL setting to suit your low volume listening needs.

Memo If listening at loud volumes we recommend turning the Dynamic Range Control OFF.

DIGITAL INPUT SELECT

In order to be able to use your digital equipment properly you need to assign digital inputs for each of the digital components you connected. Match the DIGITAL IN buttons 1-4 with the digital jacks 1-4 in accordance with what component is hooked up to each digital jack. Check the digital terminal numbers on the back of the amplifier to make certain what component is in which jack (if necessary, see p.10-11 for more on digital connections). The last button, the AC-3 RF button, is specifically for a DVD/LD or LD player with an AC-3 RF output. If you connected one of these components match this button to the component. If continuing from DYNAMIC RANGE CONTROL go to step 1. If starting fresh, complete steps 1-3 in "Setting Up for Surround Sound" (p.26) first.





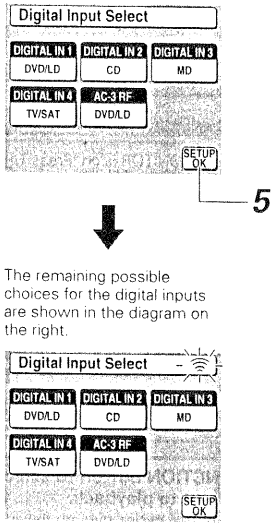
1 Press the DIGITAL INPUT SELECT button.

2 Press the DIGITAL IN button you want to assign to select it. Each further press scrolls through the possible components (functions) you can choose from. Select the component you hooked up to that digital input with that number.

This procedure assigns a digital function to the DIGITAL IN. Once one function (for example DVD/LD) has been assigned its name disappears from the possibilities on the remaining buttons because one function cannot be assigned twice.
If a digital jack has nothing connected to it set the corresponding button to OFF.

3 Repeat step 2 until all the digital in buttons correspond to the components you connected.

4 If you hooked up a DVD/LD or LD player to the AC-3 RF channel choose the proper component with the same method described above.

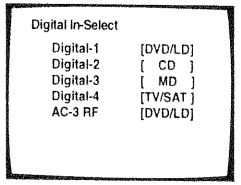


The remaining possible choices for the digital inputs are shown in the diagram on the right.

5 Press the SETUP OK button to return the SYSTEM SETUP menu.

Hold the remote control pointed towards the amplifier until you see the "RECEIVED" display on the amplifier. If "ERROR" flashes in the display, perform the setup operations from the first step again.

These settings will be displayed on your TV. (The settings pictured here are the default settings.)



Memo

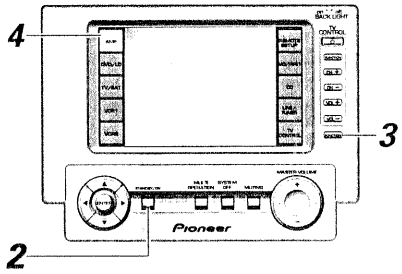
- For the DIGITAL IN 1-4 buttons you can choose between DVD/LD, CD, TV/SAT, MD/TAPE 1, LINE/TUNER, VCR 1 and VCR 2 functions.
- For the AC-3 RF button you can choose between DVD/LD, TV/SAT, VCR 1 and VCR 2 functions.
  Remember, if you have a DVD/LD player or LD player you should hook it up to the analog and digital jacks in addition to the AC-3 RF connection described here.

Before operating the amplifier, be sure to press the main power button on the front panel to turn the power ON (▬).

Playing Source with Stereo Sound

The following instructions show you how to play audio or audio-visual sources with the VSA-E07.

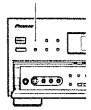
Memo If the TAPE 2 indicator is visible in the display, it means the TAPE 2 MONITOR is on. Press TAPE 2 MONITOR on the front panel to turn it off unless you want to listen to TAPE 2.

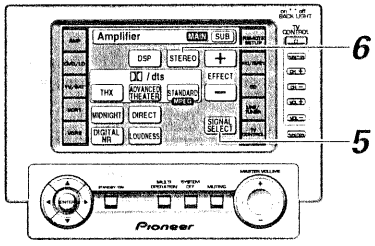


1 Turn on the power of the playback component.

2 Press the ⏻ STANDBY/ON button to turn on the amplifier.

Be sure that the standby indicator turns off on the front panel.





3 Press the FUNCTION button to select the source you want to playback.

The FUNCTION button cycles through the sources in the following order:

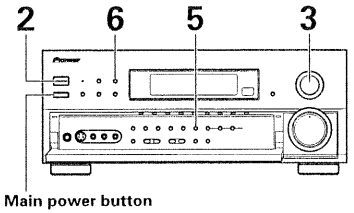
DVD/LD → TV/SAT → CD → MD/TAPE 1 → LINE/TUNER → PHONO → VIDEO → VCR 1 → VCR 2 → (back to DVD/LD)

4 Press the AMP button.

The Amplifier MAIN screen appears on the remote.

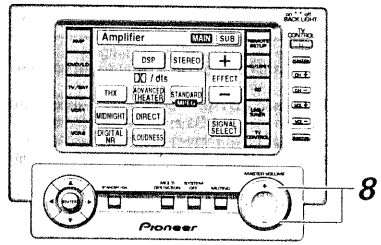
5 Press the SIGNAL SELECT button to select the input signal corresponding to the source component (setting the switch to AUTO assures the proper signal will be selected).

(See "Switching ANALOG/DIGITAL signal input" on p.45.)



6 Press the STEREO button to select the STEREO mode.

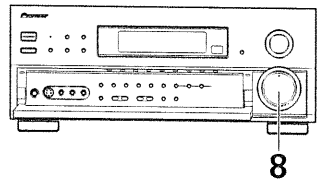
The STEREO indicator lights on the display.



7 Start playback of the component you selected in step 1.

8 Adjust the volume by using the MASTER VOLUME buttons on the remote control or the MASTER VOLUME on the front panel.

Return to the Amplifier screens (by pressing to AMP button and SUB, if needed) to make other sound adjustments like bass/treble, loudness etc.



Memo If you are not able to get sound from the amplifier the problem may well lie with the SIGNAL SELECT switch. You need to make sure the input is set to the appropriate ANALOG or DIGITAL setting. Refer to page 45 for more on this.

OPERATION

Sound Modes

The six sound modes on the VSA-E07 are explained here. These can be turned on from the front panel or from the Amplifier MAIN screen on the remote control.
There are four cinema modes: MPEG, STANDARD, HOME THX CINEMA, and ADVANCED THEATER. These are designed to be used with multi channel surround sound audio/visual sources (like DVDs and LDs). Intrinsic to home theater, these modes can deliver realistic and powerful surround sound that recreates the movie theater experience. You may need to experiment with them to see which settings suit your home system and personal tastes.
The DSP and STEREO modes are designed to be used with music sources but some DSP modes are also suited for film soundtracks. Again, try different settings with various soundtracks to see which you like.
You must choose one of the three cinema modes or the DSP mode in order to get surround sound. In STEREO mode only the front two speakers are used.

MPEG mode

Use this mode to enjoy playback of software recorded in MPEG audio. For more detailed information, see p.70.

STANDARD mode

This mode is for pure decoding of Dolby Digital, DTS and Dolby Pro Logic. No special effects are added. It is good for enjoying regular movies that have been recorded in Dolby Digital, DTS or Dolby Surround.

HOME THX CINEMA mode

THX is a set of technical standards created by Lucasfilm, Ltd. These standards were designed to emulate a film sound stage and thus reproduce, with the greatest possible accuracy, the soundtrack intended by the filmmakers. For more detailed information see p. 70.

ADVANCED THEATER modes

The Advanced Theater mode is a newly designed system for enhancing movie soundtracks and other audio-visual sources. It incorporates the use of DTS (Digital Theater System) as well as Dolby Digital into its sound processing. These functions switch on automatically when the source you are playing is encoded with DTS or Dolby Digital (bearing the DTS logo). There are four Advanced Theater settings that use DSP (Digital Signal Processing) to create different types of sound environments.

MUSICAL
This mode is primarily for music and adds a spacious feeling to the sound. A long delay time of reflected sounds, provides resonant tones which emulate a concert hall.

DRAMA (CINEMA)
This mode is designed for movies with a lot of dialog. The elements of dialog are enhanced, making the characters seem more real. The mode also compresses the dynamic range somewhat so loud sounds do not overpower softer ones (compare this with the MIDNIGHT listening mode explained on p.47).

ACTION
This mode is designed for action movies, which generally use lots of sound effects. The mode enriches the sound to make it more realistic and extends the parameters to pick up high and low sound effects.

5-D THEATER
This mode is especially designed to give sound depth to stereo sources. The overall effect builds a dynamic and broad sound space, allowing two-channel (stereo) signals to faithfully imitate a five speaker sound. The mode should be used in conjunction with Dolby Pro Logic for sources bearing the DOLBY SURROUND mark.

Memo When a Dolby Digital soundtrack is played back the Dialog Normalization function of the amplifier activates automatically. Dialog Normalization is a Dolby Digital function that establishes the average dialog level for the program source being played. If the amplifier's level does not match the average dialog level, first you see "DIAL. NORM" flash in the amplifier's display and next OFFSET +4 dB (as an example) will appear. The number +4 dB is the difference between the amplifier's gain structure and the Dolby Digital average dialog level. To match the average dialog level, subtract or add the OFFSET level. For example, if the OFFSET level is +4 dB, the amplifier's output is 4 dB over the average recorded level.

DSP modes

The DSP (Digital Signal Processing) modes allow you to transform your living room into a variety of different sonic environments when playing either two-channel or multi-channel sources.

HALL 1
Simulates the acoustic effects of a large concert hall. Suitable for classical music. A long delay time of reflected sounds, coupled with reverb effects, let the listener enjoy the dynamic and rich sounds characteristic of concert halls and powerful orchestral performances.

HALL 2
Simulates the acoustic environment of a very resonant concert hall. Rich reverberation and a full sound create the impression of a lively performance space.

JAZZ
Simulates the acoustic effects of a jazz club. Reflected sound is virtually below 100 msec so that the listener can enjoy a live band effect.

DANCE
Simulates the acoustic effects of a dance club. Features a strong bass sound.
Reflected sound delay time is virtually below 50 msec, for the listener to enjoy the visceral power of dance music.

THEATER 1
Reproduces theater sound field effects without losing the localization of each channel. Theater effects can be enjoyed without losing Dolby Digital/ Pro Logic effects when used in combination those formats (with movies bearing the DOLBY SURROUND trademark).

THEATER 2
Simulates the acoustic environment of a theater while maintaining proper localization of each channel.

Stereo mode

Use the STEREO mode to enjoy standard (two-channel) stereo sound from the front left and right speakers.

This mode also allows you to :
- Use the BASS and TREBLE tone controls
- Use DIRECT for truer reproduction of the original recording.
- Use DIGITAL NR

See front panel explanations on p.16-17 and display explanations on p.18 for details on SPEAKERS (A/B), LOUDNESS, BASS (+/–) and TREBLE (+/–). See p.46 for DIGITAL NR explanations.

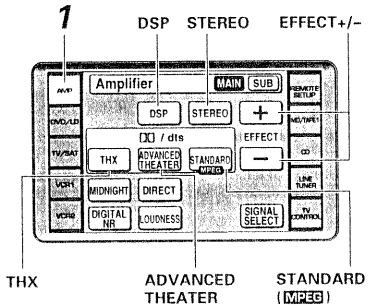
Memo When listening to Dolby Digital or DTS sources, DIGITAL NR does not function even if you select STEREO.

Before operating the amplifier, be sure to press the main power button on the front panel to turn the power ON (▬).

Selecting a Sound Mode

To ensure the best possible surround sound, be sure to complete the set up procedures described in "Setting Up for Surround Sound" (starting on page 26) before using the sound modes. This is particularly important when using the DD (Dolby) Digital or DTS sources. When using the sound modes, SPEAKERS A will give the best results. If you use SPEAKERS B, the sound will be down mixed to the two front B speakers.

Surround operation



1 Press the AMP button.

This sets the remote to select the sound mode.
(You can skip this step when using the controls on the amplifier.)

2 Select the sound mode.

- For HOME THX CINEMA ➡ Press THX
- For ADVANCED THEATER ➡ Press ADVANCED THEATER
  Each press changes the ADVANCED THEATER mode as follows:

  MUSICAL → DRAMA → 5-D THEATER → ACTION →

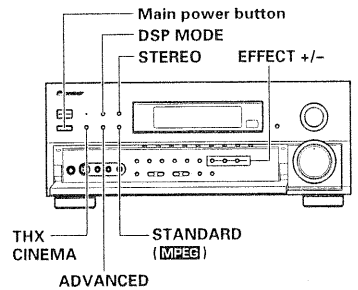
- For STANDARD ➡ Press STANDARD (MPEG)
- For MPEG ➡ Press STANDARD (MPEG) repeatedly.
  Each press changes as follows:

  STANDARD → MPEG →

- For DSP modes ➡ Press DSP repeatedly.
  Each press changes the DSP mode as follows:

  HALL1 → HALL 2 → JAZZ → THEATER 2 → THEATER 1 → DANCE →

- For STEREO ➡ Press STEREO.

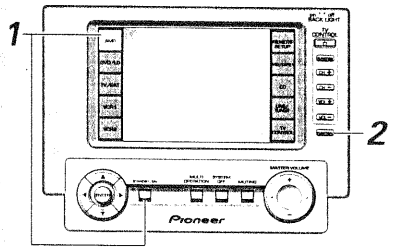


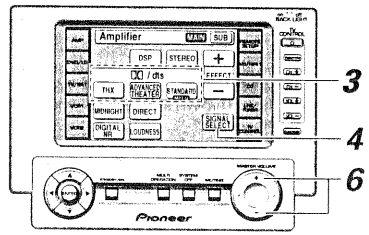
Memo
- The effects of ADVANCED THEATER mode can be adjusted in the range of 10 to 90 by pressing EFFECT +/– (The default setting is 70). Also, the effect level can be set in each ADVANCED THEATER mode by pressing the EFFECT(+/–) button. 5-D THEATER modes cannot be changed.
- The amount of effect of each DSP mode can be adjusted in the range of 10 to 90 (the default setting value is 70) by pressing EFFECT +/–.
- When a digital input is selected, using some discs with a huge amount of information may cause the overload indicator to light up. If the overload indicator is lit, the signal may be distorting. To ensure there's no distortion you can switch to the STANDARD mode.

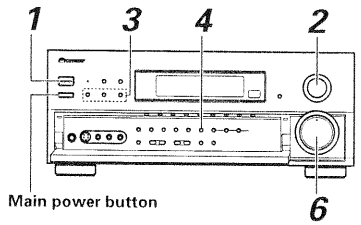
Before operating the amplifier, be sure to press the main power button on the front panel to turn the power ON (▬).

Playing Source with Dolby Digital, DTS Sound or MPEG Audio

The following instructions show you how to play Dolby Digital, DTS sound or MPEG Audio sources with the VSA-E07.







1 Turn on the amplifier and press the AMP button on the remote control.

The Amplifier MAIN screen appears on the remote.

2 Press the FUNCTION button of the component (DVD/LD, etc.) you want to listen to/watch.

3 Choose a DD Surround/dts mode by pressing the THX, ADVANCED THEATER or STANDARD (MPEG) button.

(For more see "Sound Modes," p. 40-41.)

4 Press the SIGNAL SELECT button to select the input signal corresponding to the source component (setting the switch to AUTO assures the proper signal will be selected).

(See "Switching ANALOG/DIGITAL Signal Input" on p. 45.)

5 Play a source (for example, a DVD player).

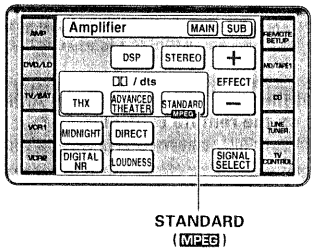
6 Adjust the volume by using the MASTER VOLUME buttons on the remote control or the MASTER VOLUME on the front panel.

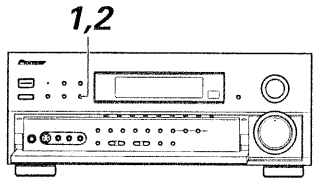
Return to the Amplifier screens (by pressing to AMP button and SUB, if needed) to make other sound adjustments like bass/treble, loudness etc.

Memo
- We recommend using different modes for different types of DTS material. For watching movies, the THX or ADVANCED THEATER setting should provide the best results. For listening to music, the STANDARD, DIRECT, STEREO, or DSP modes should serve the listener best.
- Make sure you connect your DVD/LD or LD players using the AC-3 RF jack. If your player has an AC-3 RF output this will ensure you can use all LDs. Refer to pages 10, 11 and 36.

Using MPEG audio discs

The VSA-E07 can decode a variety of different types of audio formats for DVDs and these include MPEG. MPEG is a highly sophisticated audio encoding system which some discs use. If the disc you are using has MPEG audio (it will be marked on the disc) switch the amplifier to the MPEG mode using the procedure below. If you try to play an MPEG audio disc in any mode other than the MPEG mode no sound will be heard.

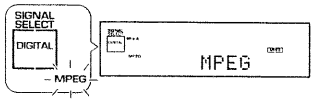




1 If the amplifier is not in the STANDARD mode, put it in that mode by pressing the STANDARD (MPEG) button.

2 Press the STANDARD (MPEG) button to switch into MPEG mode.

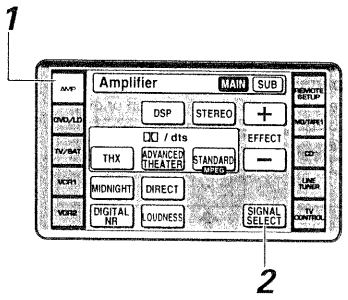
Each press switches between regular STANDARD mode and MPEG mode.
"MPEG" will light up in the main display to confirm you are in MPEG mode. After that a small "MPEG" will appear in the bottom left of the display window where "AC-3" or "DTS" would appear if you were in one of those modes. If this "MPEG" display is flashing it means the MPEG signal is not being received.

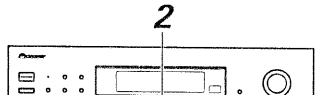


Memo
- If the disc you are using is not an MPEG disc or there is some other problem, the small "MPEG" display will flash. This will also happen when the disc is paused.
- You can't use any other sound mode (ADVANCED, STANDARD, etc., when using the MPEG mode.
- If you use a disc that is not MPEG when the amplifier is in MPEG mode, no sound will be heard.

Switching ANALOG/DIGITAL signal input

This button selects the type of input, ANALOG, DIGITAL or AC-3 RF, sent to the amplifier. You need to take special care to switch to the appropriate input, when necessary. For example, the switch would have to be on DIGITAL to hear DOLBY DIGITAL or DTS surround sound material but it would have to be on analog to record from the ANALOG out jacks on the receiver. The default setting is AUTO which chooses digital when all three are available but goes with whatever is available if it is the only choice.





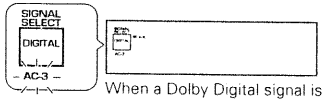
1 Press the AMP button.

2 Press the SIGNAL SELECT button to select the input signal corresponding to the format of the source component.

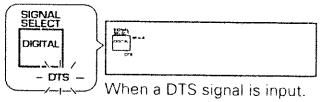
Each press switches the signal in the order below:

AUTO → ANALOG → DIGITAL → AC-3RF → AUTO

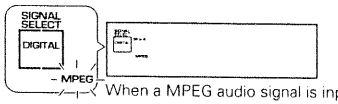
3 While SIGNAL SELECT is set to DIGITAL, AC-3 lights when a Dolby Digital signal is input, and DTS lights when a DTS signal is input, and MPEG lights when a MPEG signal is input



When a Dolby Digital signal is input.



When a DTS signal is input.

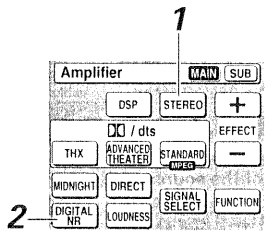


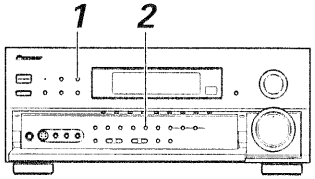
When a MPEG audio signal is input.

Memo
- In the AUTO setting, SIGNAL SELECT chooses the signal, based on availability, in the following order: AC-3 RF, DIGITAL, ANALOG.
- If all the DIGITAL INPUT SELECT (see p.36) choices are set to OFF, the SIGNAL SELECT will default to ANALOG.
- Because the audio from a karaoke microphone and LDs recorded with analog audio only is not output from the digital output, set SIGNAL SELECT to ANALOG.
- This amplifier can only play back Dolby Digital, PCM (32kHz, 44kHz, 48kHz, and 96kHz), DTS and MPEG digital signal formats. It cannot play back digital signals other than these so for those kinds of formats you'll have to play them back in an analog manner (making sure your equipment is hooked up with analog connections and setting the SIGNAL SELECT to ANALOG).
- When an LD or CD with DTS is played back with the SIGNAL SELECT set in ANALOG, digital noise caused by playing back the DTS directly (with no decoding) is output. To prevent noise, you need to make digital connections (See p.10, 11) and set SIGNAL SELECT to AUTO.
- Some DVD players don't output DTS signals. For more details, refer to the instruction manual supplied with your DVD player.
- The SIGNAL SELECT is fixed to DIGITAL in the MPEG audio mode.

Reducing noise during playback (DIGITAL NR function)

To reduce extraneous noise switch on DIGITAL NR. This noise reduction can only be used in the STEREO mode.

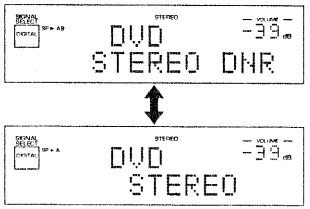




1 Press the STEREO button on the remote control's Amplifier MAIN screen or on the front panel.

2 Press the DIGITAL NR button on the remote control's Amplifier MAIN screen or on the front panel.

Each press switches DIGITAL NR on or off.



Memo
- When DIGITAL NR is on and Dolby Digital or DTS signals are input, DIGITAL NR is automatically switched off.
- In cases described below, noises may not be reduced even if DIGITAL NR is on.
  - Sudden noise
  - Extremely loud noise
  - Signals that do not contain many high frequencies
- DIGITAL NR is effective at and above levels shown below for each source,.
  - Cassette tape ..... 20 dB
  - Video tape ..... 15 dB
  - AM tuner ..... 10 to 15 dB
  - FM tuner ..... 15 to 16 dB

* Depending on the condition of the source, there may not be a noticeable improvement in the quality of the sound.

96kHz/24bit Performance

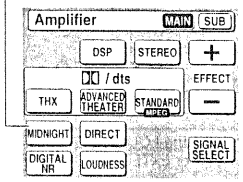
This amplifier is capable of playing back advanced DVD discs which are recorded in 96kHz/24 bit format (these are all stereo discs). The amplifier will automatically read the format of the disc and play accordingly (of course the SIGNAL SELECT will have to set to AUTO or DIGITAL to read the DVD soundtrack). When the amplifier plays a 96 kHz/24 bit disc "96 kHz" appears in the display. If you try to use one of the functions or modes mentioned below "96kHz" will light on the display, as shown below, indicating the procedure is not possible.

Memo
- When a 96kHz/24 bit disc is played back the volume may be louder than that of a normal disc.
- Some DVD players cannot play 96kHz/24 bit discs. Check the manual of your DVD player to make sure.
- During this playback you cannot use the tone controls, the DIRECT function, the LOUDNESS function, any of the sound modes, or any of the effect modes.
- With 96kHz/24 bit discs you are able to use EXTERNAL DECODER playback and the TAPE 2 MONITOR.

Listening in MIDNIGHT listening mode

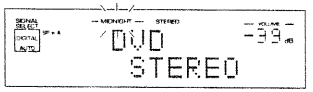
This feature makes it possible to get excellent surround sound effects even when listening at low volumes. It can be used with a variety of surround sound sources and play soundtracks so that the quieter sounds are audible while the noisier sounds don't become overly loud or distorted. It does this by bringing all the sounds in a given soundtrack closer together in volume. Compare this feature with the DYNAMIC RANGE CONTROL (only for Dolby Digital sources) on p. 35.

MIDNIGHT

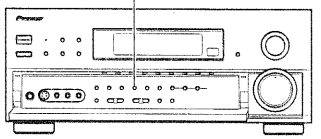


Press the MIDNIGHT button on the remote control's Amplifier MAIN screen or on the front panel.

Each press switches MIDNIGHT LISTENING mode on or off.



MIDNIGHT

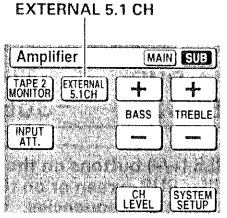


Memo
- The effect adjusts itself automatically in accordance with the volume level.
- You can't use the MIDNIGHT LISTENING mode with the THX, DIRECT or EXTERNAL DECODER modes.

External decoder playback

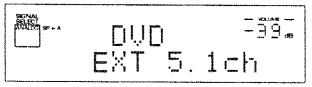
This feature allows you to connect an external decoder to enjoy certain types of specialized discs.

EXTERNAL 5.1 CH

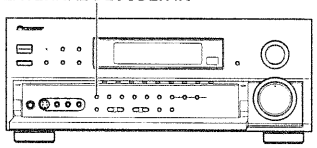


Press the EXTERNAL 5.1 CH button on the remote control's Amplifier SUB screen. On the front panel press the EXTERNAL DECODER IN button.

Each press switches the input between the previous mode and EXTERNAL DECODER.



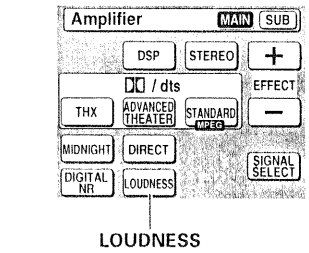
EXTERNAL DECODER IN



Memo When EXTERNAL DECODER is selected only the volume level and channel levels can be set. All of this unit's other features (DSP modes, ADVANCED THEATER modes, DIRECT mode, TONE controls, etc.), as well as the PHONO modes, cannot be used. Also, all speaker settings and other setup settings have no effect.

Listening in LOUDNESS mode

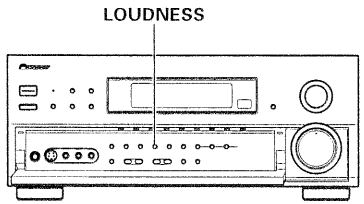
The LOUDNESS mode allows you to boost the bass in a signal. It is useful for listening to music at low volumes.



Press the LOUDNESS button on the remote control's Amplifier MAIN screen or on the front panel.

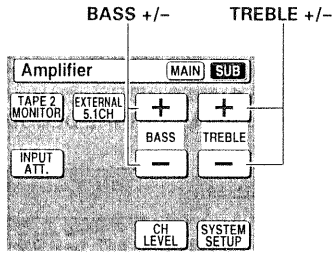
Each press switches LOUDNESS mode on or off.

Memo You can't use the LOUDNESS mode with the THX, DIRECT or EXTERNAL DECODER modes.

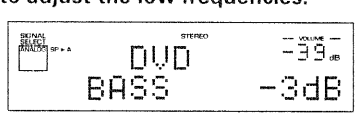


Adjusting bass and treble (tone control)

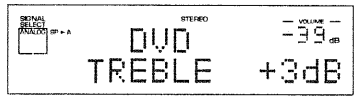
Use the BASS (+/–) or TREBLE (+/–) buttons to adjust the low and high frequencies (the amplifier must be in STEREO mode).

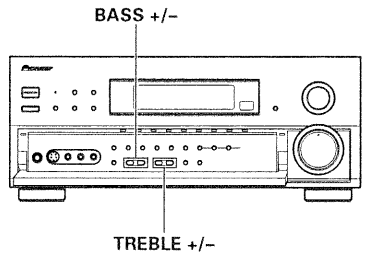


Press the BASS (+/–) buttons on the remote control's Amplifier SUB screen or on the front panel to adjust the low frequencies.



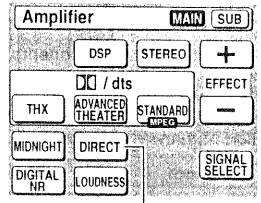
Press the TREBLE (+/–) buttons on the remote control's Amplifier SUB screen or on the front panel to adjust the high frequencies.

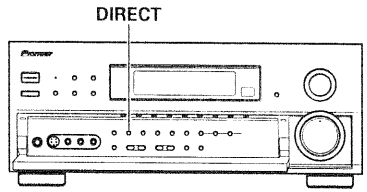




Memo
- The tone control can be adjusted in a range of ±6 dB.
- The tone control cannot be adjusted in STANDARD, ADVANCED THEATER modes as well as DSP, THX, EXTERNAL DECODER, DIRECT, and 96kHz settings.

Direct playback





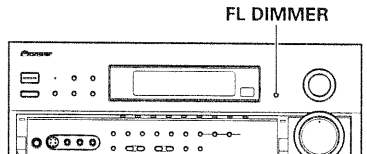
Press the DIRECT button on the remote control's Amplifier MAIN screen or on the front panel.

This mode will give you the most accurate reproduction of two channels sources.

Memo None of the tone controls or other sound modes can be used.

Adjusting the brightness of the display (front panel only)

Use the FL DIMMER button to adjust the brightness of the fluorescent display (FL=fluorescent display).



Press the FL DIMMER button.

Four levels of brightness ranging from very dim to very bright can be selected. Each press changes the brightness of the display. When rotating through the options, the default brightness can also be selected.

Memo Please note: it is a feature of this unit that the fluorescent display will be brighter for a few seconds after you choose a function (like DVD/LD, CD, etc.) and then get softer. This will still happen when you adjust the brightness but the new setting will be the one the display softens to.

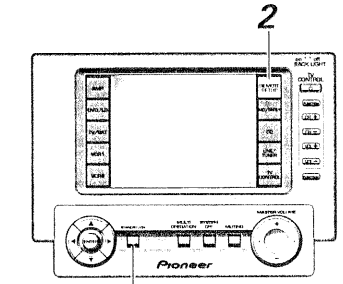
Setting Up the Remote Control to Control Other Components

In addition to controlling the amplifier, the supplied remote control can operate your other components (VCR, TV, LD, CD, etc.) after you program it to do so. In this way, instead of fumbling with many different controls and buttons, you only need to use one remote control. If your component(s) are listed in the remote control's memory, simply follow the steps below. If your component(s) are not listed, or if you want the remote to learn additional operations, you can use the learning mode to input the information from the remote controls supplied with your other components.

Recalling settings stored in the remote control

The following steps show you how to recall the setting stored in the remote control. Once a setting is recalled and the component assigned, you can use this remote to easily operate the component.

Memo
- You can press the EXIT button at any time to go back a screen.
- See "Using Remote Control with Other Components" on pages 55 through 61 to operate your other components.
- See "Preset Code List" on p. 71-74 for the components and manufactures available.


2
Pioneer
3
1
Remote Setup
EXIT
LCD COMMANDER
MULTI OPERATION
PRESET RECALL
DIRECT FUNCTION
LEARNING
Preset Recall
EXIT
The On Screen Preset Guide will help you to find out the preset ID for your equipment. The Guide will be available on the screen of TV connected to the Amplifier. Please operate according to the Guide with the cursor keys on this remote.
4

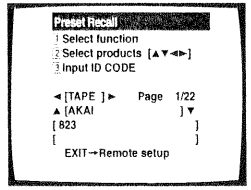
1 Turn on your TV and the amplifier.
Make sure your TV is set to the appropriate video input (e.g. VIDEO 1).

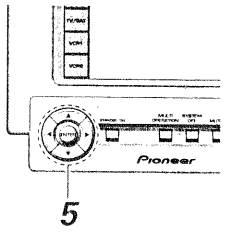
2 Press the REMOTE SETUP button.
The REMOTE SETUP menu appears on the remote control's screen.

3 Press the PRESET RECALL button on the LCD screen.

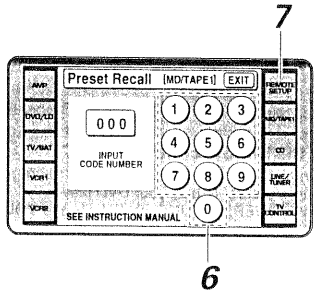
4 Choose the button you want to assign to control the component you want to operate.
Naturally it's easiest and most logical to assign the button that has the same name as the component you are setting up (for example, choose the CD button for your CD player).
In some cases, however, you may need to assign a button to a component with a different name. For example, on button is marked MD/TAPE 1. If you assign this button to your MD player you'll need to use a different button, like VCR 2, for your tape deck.

The first manufacturer (and preset code(s)) appear on your TV screen





5 Press the ◄/► buttons to choose the component and then press the ▲/▼ buttons to display the name of the component's manufacturer.
Most manufacturers have been programmed into the amplifier, but if your component is made by a small or relatively unknown manufacturer you may not be able to find it.



6 Point the remote toward the component to be controlled, and enter the 3 digit setup code.
When you enter the setup code, the remote emits a power ON/OFF signal. If the component turns ON or OFF, you have entered the proper code.
If the component does not turn ON or OFF and there is more than one setup code, try inputting another code. Some manufacturers use several sets of remote control signals and the first code may not correspond to your component.

Repeat steps 4 through 6 to assign preset codes for as many components as necessary.
If you can't get your component to respond to any of the codes you can still program the component into the remote control using the procedure in the next section.

7 Press the REMOTE SETUP button to exit the PRESET RECALL SETUP mode.
The remote control and TV return to their previous operation modes.

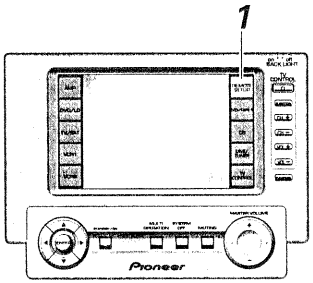
This method should help you customize the remote control for your system.

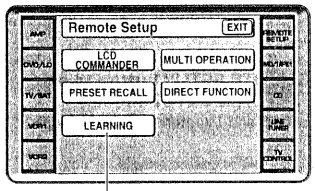
To go back a screen
press EXIT

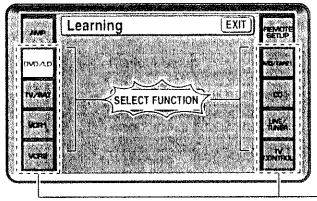
To exit the process
press EXIT repeatedly.

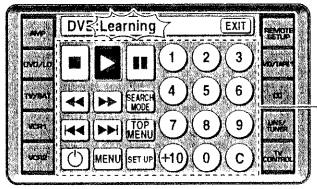
Learning mode: Programming signals from other remote controls

If preset codes are not available for your component(s), or the available preset codes do not operate correctly, you can use this procedure to program in signals from the remote control(s) of your other component(s). These steps can also be used to add further operations to the remote control screens that were successfully set with the stored settings (see p.50).









1 Press the REMOTE SETUP button.

2 Press the LEARNING button.

If you want to cancel the REMOTE SETUP mode press EXIT. You will return to the amplifier menu.

3 SELECT FUNCTION blink on the remote control LCD. Press the function button for the component you want to control.

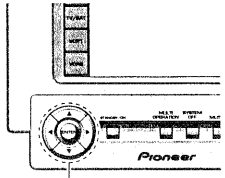
For example purposes we will use the DVD/LD function.

4 Choose the command you want to teach the remote control and press the corresponding button on the LCD screen. The word "Learning" will blink in the top bar of the remote control screen.

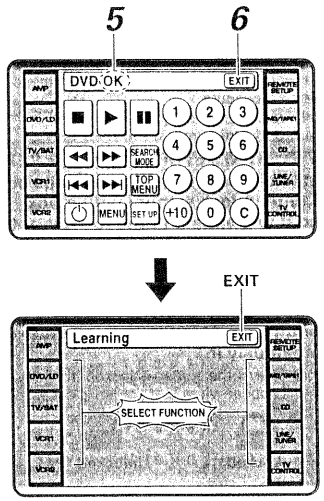
For example, choose the ► (play) button to program this remote control to play your DVD player

- The TV POWER, TV FUNC, TV CH +/– and VOL +/– buttons are only available for learning when programming TV CONTROL operations.
- Pressing EXIT cancels the process.

Memo You can also program the △/▽/◁/▷ and ENTER cursor buttons with the LEARNING mode.



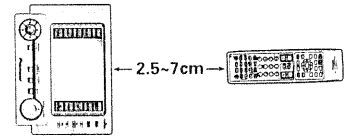
△/▽/◁/▷ and ENTER cursor buttons



5 Point the two remote controls toward each other. Press the button on the other remote control corresponding to the operation you want to program.

LEARNING flashes in the display on the remote control. After the process is complete and the command has been learned, OK will appear at the top of the remote control LCD display. If NG (no good) appears, it means that for some reason the command was not learned.

Repeat steps 4 and 5 to teach the remote control of the VSA-E07 all the commands from remote control.



6 Press the EXIT button to return to the LEARNING/SELECT FUNCTION screen.

Start again from step 3 to program all your components in this manner.

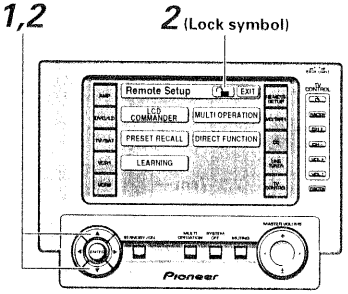
When you're done press the EXIT button repeatedly to return to the REMOTE SETUP menu.

Memo Some commands from other remote controls cannot be learned, but in most cases the remotes just need to be moved closer together or farther apart.

OPERATION

Locking the Settings

This feature allows you to lock the SYSTEM SETUP and REMOTE SETUP settings so that they cannot be changed without unlocking them first. When they are locked you cannot enter the setting screen in these modes. The locking and unlocking procedures are done by the same procedure.



1 In the SYSTEM SETUP or REMOTE SET UP screens hold down the △/▽ buttons at the same time. A lock symbol with a box around it will appear in the top bar of the LCD screen.

2 Press the lock symbol while holding down the above two keys. The setting will either lock or unlock depending on the state it was previously in.

From that time, if the screen is locked the lock symbol will appear when that screen is accessed.

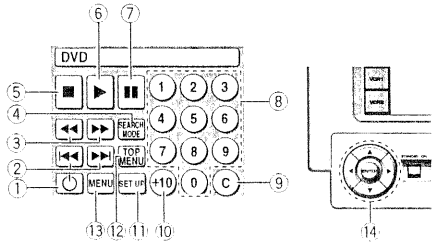
Memo The only exception to LOCKING THE SETTINGS is the LCD COMMANDER settings in the REMOTE SETUP screen. They can still be accessed even when the REMOTE SETUP screen is locked.

Using Remote Control with Other Components

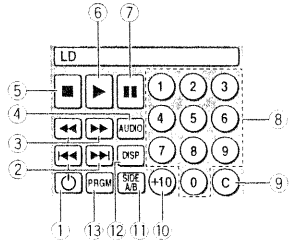
DVD or LD player operations

Memo
- **The following operations are available from the amplifier's remote control after you program your DVD or LD player into it, but some operations may need to be learned separately by the amplifier (see "Setting Up the Remote Control to Control Other Components," p. 50-53).**
- To perform these operations, press the DVD/LD button to set the remote to the DVD or LD operation mode.
- For more information on individual commands consult the manual that came with the component.

[DVD]



[LD]



① ⏻
Press to switch the DVD/LD player on or off.

② I◄◄/►►I
I◄◄ : Press to return to the beginning of the current chapter (track). Press repeatedly to return to the beginning of previous chapters (tracks).
►►I : Press to advance to the beginning of the next chapter (track). Press repeatedly to advance to the beginning of following chapters (tracks).

③ ◄◄/►►
◄◄ : Hold down for fast reverse playback.
►► : Hold down for fast forward playback.

④ **[DVD] SEARCH MODE**
Press to perform a title, chapter/track or elapsed time search.

[LD] AUDIO
The audio type can be changed between stereo and monaural setting and between digital and analog setting.

⑤ ■
Press to stop playback.

⑥ ►
Press to start playback.

⑦ ❚❚
Press to pause playback.

⑧ **Number buttons**
Use to select chapters (tracks).

⑨ **C**
Use to clear chapters (tracks) or programmed selections.

⑩ **+10**
Use when selecting chapter (track) numbers higher than 10.

⑪ **[DVD] SET UP**
Use to set the DVD player mode available on some DVD players.

[LD] SIDE A/B
Use to change the LD between sides A and B.

⑫ **[DVD] TOP MENU**
Press to call up the menu programmed on the DVD.

[LD] DISP
Use to view disc time, elapsed time other information programmed into certain discs.

⑬ **[DVD] MENU**
Use to display or close the title menu screen.

[LD] PRGM
Use to chapter (tracks) to program playback.

⑭ **[DVD] △/▽/◁/▷/ENTER**
△/▽/◁/▷ : Use to navigate through options on menu screens and to change settings.
ENTER : Use to implement settings selected with the cursor buttons or to set items highlighted in a menu.

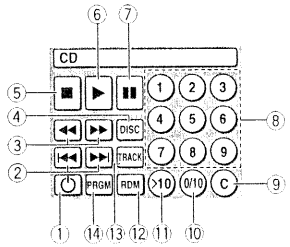
OPERATION

CD player or MD recorder operations

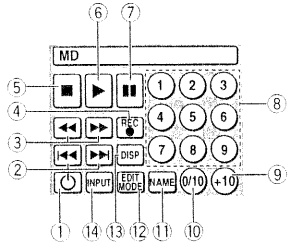
Memo

- **The following operations are available from the amplifier's control after you program your CD player or MD recorder into it, but some operations may need to be learned separately by the amplifier (see "Setting Up the Remote Control to Control Other Components," p. 50-53).**
- To perform these operations, press the CD or MD/TAPE 1 button to set the remote to the CD or MD operation mode.
- For more information on individual commands consult the manual that came with the component.

[CD]



[MD]



① ⏻
Press to switch the CD player/MD recorder on or off.

② ⏮/⏭
⏮ : Press to return to the beginning of the current track. Press repeatedly to return to the beginning of previous tracks.
⏭ : Press to advance to the beginning of the next track. Press repeatedly to advance to the beginning of following tracks.

③ ◀◀/▶▶
◀◀ : Hold down for fast reverse playback.
▶▶ : Hold down for fast forward playback.

④ **[MD] ● REC**
Press to start recording (may put some decks in REC PAUSE mode).

[CD] DISC
Use to switch between discs with file type disc players.

⑤ ■
Press to stop playback or recording.

⑥ ▶
Press to start playback.

⑦ ❚❚
Press to pause playback or recording.

⑧ **Number buttons**
Use to select tracks.

⑨ **[MD] +10**
You can also use this button when selecting track numbers higher than 10.

[CD] C
Use to clear tracks or programmed selections.

⑩ **0/10**
Use to select tracks with high numbers. The button will increase the track number in increments of ten.

⑪ **[MD] NAME**
Use to name tracks or programmed selections.

[CD] >10
You can also use this button when selecting track numbers higher than 10.

⑫ **[MD] EDIT MODE**
Allows you to edit names and numbers of tracks.

[CD] RDM
Use to select the random playback function. The CD player will play all the tracks on the disc in a random order.

⑬ **[MD] DISP**
Allows you to change the display mode of the MD.

[CD] TRACK
Use to select the track (not possible with all models).

⑭ **[MD] INPUT**
Switches between the analog and digital input.

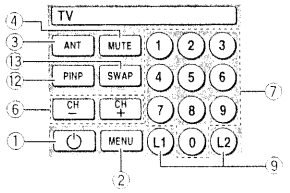
[CD] PRGM
This button allows you to program a series of tracks into the tracks into the CD player (may not be possible with some CD players).

TV operations

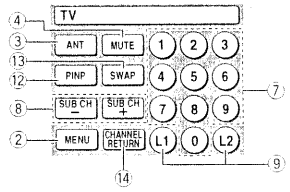
Memo

- **The following operations are available from the amplifier's remote control after you program your TV into it, but some operations may need to be learned separately by the amplifier (see "Setting Up the Remote Control to Control Other Components," p. 50-53).**
- To perform these operations, press the TV/SAT or TV CONTROL button to set the remote to the TV operation mode.
- For more information on individual commands consult the manual that came with the your TV.
- The "Standard" screen will appear when presetting the TV/SAT (or any other) function button. When presetting the TV CONTROL function button, another TV screen will appear.

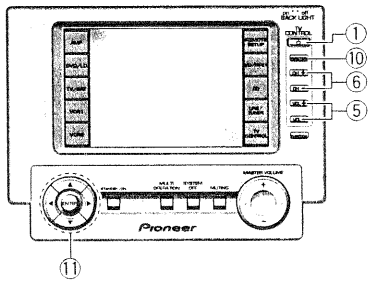
Standard TV screen



TV screen (TV CONTROL)



Memo You can operate your TV by using the TV control buttons as well.



① ⏻
Press to switch the TV on or off.

② **MENU**
Use to select different menus on a TV screen.

③ **ANT**
Use to select the type of antenna you have hooked up to your TV.

④ **MUTE**
Press to mute or restore the volume.

⑤ **VOL (–/+)**
Press to control the volume of the TV.

⑥ **CH (–/+)**
Use these buttons to change the channel of the TV.

⑦ **Number buttons**
Use to select a specific TV channel.

⑧ **SUB CH (–/+)**
Use these buttons to change the sub-channel of the TV.

⑨ **L1, L2**
A freely assignable key where you can enter any command you like—refer to p. 52-53 for more on this.

⑩ **TV FUNCTION**
Press TV FUNCTION to select the TV's input.

⑪ **△/▽/◁/▷/ENTER**
△/▽/◁/▷ : Use to select or adjust items on the menu screen.
ENTER : Use to activate the selected function.

⑫ **P IN P**
Press P IN P to turn on or off the sub-screen in picture-in-picture mode.

⑬ **SWAP**
Press SWAP to exchange the main screen for the sub-screen.

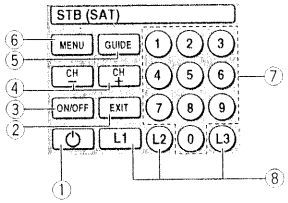
⑭ **CHANNEL RETURN**
Use to return to the previous channel.

The following operations are available from the amplifier's remote control after you program your satellite tuner/VCR deck/Cassette deck into it, but some operations may need to be learned separately by the amplifer (see "Setting Up the Remote Control to Control Other Components," p. 50-53).

STB (satellite tuner) operations

Memo
- To perform these operations, press the TV/SAT button to set the remote to the SAT operation mode.
- For more information on individual commands consult the manual that came with the component.
- When presetting a satellite tuner other than one made by PIONEER, screen1 will appear.
- When presetting a PIONEER satellite tuner, screen 2 will appear.

Satellite Tuner screen 1



① ⏻
Press to switch the satellite tuner on or off.

② **EXIT**
Press to exit the current setting of the SAT.

③ **OFF/ON**
Press to switch the satellite tuner off.

④ **CH –/+**
Use to chnage channels on the satellite tuner.

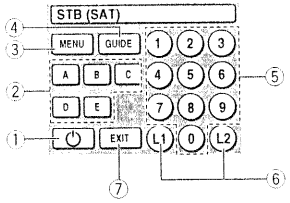
⑤ **GUIDE**
Use to turn the program information screen on or off.

⑥ **MENU**
Use to turn the main menu on or off.

⑦ **Number buttons**
Use to select satellite channels.

⑧ **L1-3**
Freely assignable keys where you can enter any command you like-refer to p. 52-53 for more on this.

Satellite Tuner screen 2



① ⏻
Press to switch the satellite tuner on or off.

② **A/B/C/D/E**
Use to make selections from the SAT menu.

③ **MENU**
Use to turn the main menu on or off.

④ **GUIDE**
Use to turn the program information screen on or off.

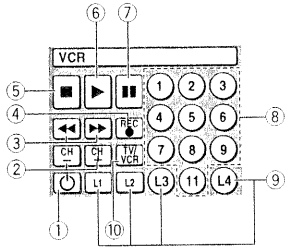
⑤ **Number buttons**
Use to select satellite channels.

⑥ **L1-2**
Freely assignable keys where you can enter any command you like-refer to p. 52-53 for more on this.

⑦ **EXIT**
Press to exit the current setting of the SAT.

VCR operations

Memo
- To perform these operations, press the VCR 1 or VCR 2 button to set the remote to the VCR operation mode.
- For more information on individual commands consult the manual that came with the component.



① ⏻
Press to switch the VCR on or off.

② **CH –/+**
Use to change channels on the VCR's tuner.

③ **◄◄/►►**
◄◄ : Press to rewind the tape.
►► : Press to fast foward the tape.

④ **REC ●**
Press to start recording.

⑤ ■
Press to stop playback.

⑥ ►
Press to start playback.

⑦ ❚❚
Press to pause playback.

⑧ **Number buttons**
Use to change channels on the VCR.

⑨ **L1-4**
Freely assignable keys where you can enter any commands you like-refer to p. 52-53 for more on this.

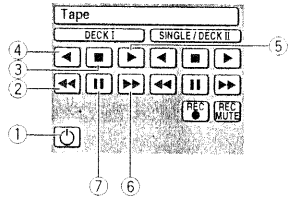
⑩ **TV/VCR**
Use this button to switch the VCR between it's TV tuner and the video function.

Cassette deck operations

You can use this remote control to control a single or a double cassette deck after you program the deck player into it. If you have a regular cassette deck with only one set of tape heads use the buttons on the right marked "SINGLE/DECK II". If you have a double cassette deck with use the buttons on the left for deck I and the buttons on the right for deck II.

Memo
- To perform these operations, press the MD/TAPE 1 button to set the remote to the TAPE operation mode.
- For more information on individual commands consult the manual that came with the component.

DECK I



① ⏻
Press to switch the cassette deck on or off (not possible with all models).

② ◄◄
Press to rewind the tape.

③ ■
Press to stop playback or recording.

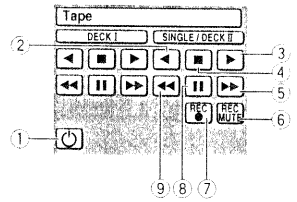
④ ◄
Press to start reverse playback (for auto reverse decks).

⑤ ►
Press to start playback of the side of the cassette which has been loaded as the front.

⑥ ►►
Press to fast forward the tape.

⑦ ❚❚
Press to pause playback or recording.

SINGLE/DECK II



① ⏻
Press to switch the cassette deck on or off (not possible with all models).

② ◄
Press to start reverse playback (for auto reverse decks).

③ ►
Press to start playback of the side of the cassette which has been loaded as the front.

④ ■
Press to stop playback or recording.

⑤ ►►
Press to fast forward the tape.

⑥ **REC MUTE**
Press and hold to make a blank space during recording. The recording will be muted for as long as the button is held down.

⑦ **REC ●**
Press to start recording (may put some decks in REC PAUSE mode).

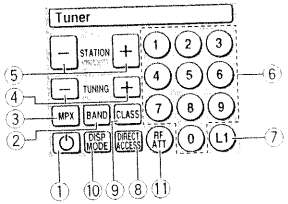
⑧ ❚❚
Press to pause playback or recording.

⑨ ◄◄
Press to rewind the tape.

Tuner operations

Memo

- **The following operations are available from the amplifier's remote control after you program your FM/AM tuner into it, but some operations may need to be learned separately by the amplifier (see "Setting Up the Remote Control to Control Other Components," p.50-53).**
- To perform these operations, press the LINE/TUNER button to set the remote to the tuner operation mode.



① ⏻
Press to switch the TUNER on or off.

② **BAND**
Switches between AM and FM radio bands.

③ **MPX**
Press to switch between auto stereo and mono reception of FM broadcasts. When the broadcast signal is weak, selecting mono will improve the sound quality.

④ **TUNING –/+**
Use to manually tune to radio stations.

⑤ **STATION –/+**
Use to choose programmed radio stations.

⑥ **Number buttons**
Use to input stations and frequency.

⑦ **L1**
Use to program selections (not possible with all models).

⑧ **DIRECT ACCESS**
Allows you to input a frequency directly.

⑨ **CLASS**
Use to select the class (A, B or C) that a preset station is in.

⑩ **DISP MODE**
Use this to switch between display modes.

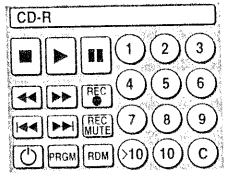
⑪ **RF ATT**
Press to turn the RF attenuator on when receiving strong FM signals (nearby stations) to reduce sound distortion.

Other screen for preset operations

In addition to the operations mentioned in this section up to this point, the VSA-E07 is equipped with remote control screens to deal with a variety of cutting edge technologies and components that may or may not have appeared on the market yet. These include: CD-R (CD write-once discs deck), CD-RW (CD rewritable discs deck), and the latest innovation, DVD video recorder.
If you have one of these components you can access the preset screen by going to the preset recall section of this manual (p. 50) and following the instructions therein. Select the appropriate screen from the list presented and assign it to a function button in the manner described. Then you can access the screen by simply pressing that function button.
Below are a list of the screens of cutting edge components you can access.

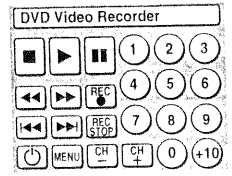
CD-R operations

Essentially all the controls are the same as those explaining the screen for a regular CD player with the added feature of being able to record. The (● REC) and the REC MUTE buttons are explained on p.59 under the cassette deck explanations.



DVD Video Recorder operations

Essentially all the controls are the same as those explaining the screen for a regular DVD player with the added feature of being able to record. The record button (● REC) is explained on p.59 under the cassette deck explanations. REC STOP is a special DVD video recorder control that stops the recording but lets you start again at any time.

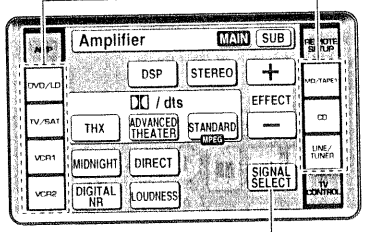


Recording from Audio Components

The following explanations show you how to record an analog or digital audio signal. Note that your analog components cannot record a player that is only connected digitally (and vice-versa). If you want to record from a digital component to an analog one (for example, a tape deck), or vice-versa, the digital component it MUST be connected via analog jacks and you need to set the SIGNAL SELECT switch to ANALOG. To make exact digital copies (of digital sources like CDs) both the source component and the recorder must be connected with digital connections. See p.8 for more on analog audio connections and p.10, 11 for digital audio connections.

Memo The amplifier's volume, channel level, balance, tone (BASS, TREBLE, and LOUDNESS), and surround effects have no effect on the recorded signal and the EXTERNAL DECODER input cannot be recorded. In some cases, digital recordings have copy guard protections and making a digital copy is not possible. In this case you can only copy them in an analog manner.

Functions that can be recorded



1 (if necessary)

1 Select the source component. Set SIGNAL SELECT according to the source component's signal (ANALOG or DIGITAL).
Press the SIGNAL SELECT button on the remote control (or use the button on the front panel) and choose ANALOG.

2 Start recording with a recorder.

3 Playback the source to be recorded.

Record monitor (TAPE 2 MONITOR)

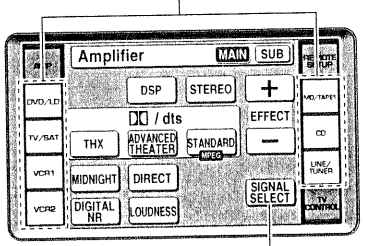
If you connect a cassette deck with a record monitor function to the TAPE 2 MONITOR jacks, you can listen to the sound of an analog recording as it is being recorded. Press TAPE 2 MONITOR to switch between the sound of the recording (TAPE 2 indicator on) and the sound of the source component (TAPE 2 indicator off).

Recording from Video Components

The following operations show you how to record audio and video to the video tape recorder connected to the VCR 1/DVR or VCR 2 jacks. Note that all signals coming out of these jacks will be analog and it is not possible to record Dolby Digital/DTS soundtracks.

Memo The amplifier's volume, channel level, balance, tone (BASS, TREBLE, and LOUDNESS), and surround effects have no effect on the recorded signal.

Functions that can be recorded



1 (if necessary)

1 First, decide the component you'd like to record and put the receiver in that function. Set the SIGNAL SELECT to analog.
Press the SIGNAL SELECT button on the remote control (or use the button on the front panel) and choose analog. Recording DIGITAL or AC-3 RF signals is not possible.

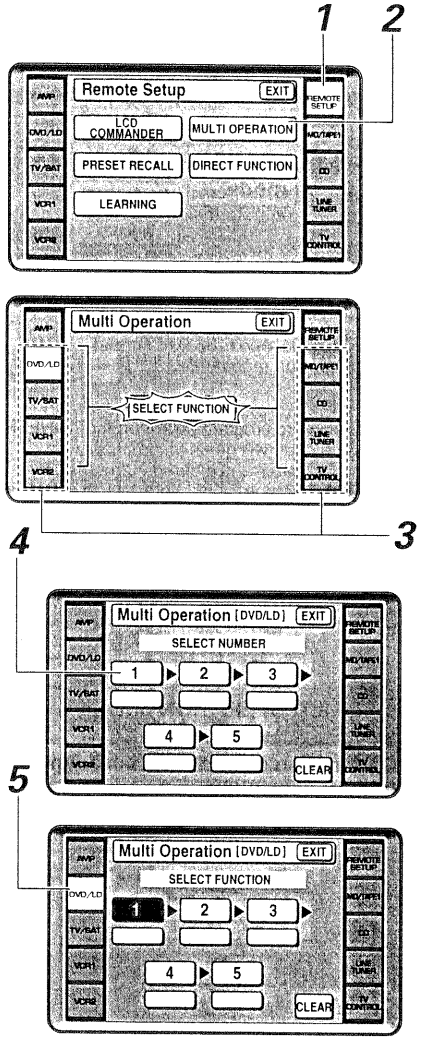
2 Start recording with VCR 1 or VCR 2 (etc.).

3 Playback the source to be recorded.

Multi Operations

Multi operations allow you to tell the amplifier and your other components to do a number of things with the push of only two buttons on the LCD commander. For example, you can program the unit to turn on your TV, turn on your DVD player and start playing the loaded DVD. This allows you to freely decide which operations you want performed as well as the order in which you want them performed. The steps below show you how to program a string of up to 5 different operations based on eight possible components. You don't need to program the power of this unit to go on, it will do so automatically when multi operations are recalled.

Memo Be sure to recall or learn the remote commands for each component before attempting multi operations (see "Setting Up the Remote Control to Control Other Components", p. 50-53).



1 Press the REMOTE SETUP button.

2 Press the MULTI OPERATION button.
To cancel MULTI OPERATION
Press REMOTE SETUP button again.

3 The next screen will instruct you to SELECT FUNCTION. Choose the component you want to start the MULTI OPERATION with and press it's FUNCTION button.
For example purposes we'll use a DVD player as the first component to be set in this multi operation process.

To go back to the REMOTE SETUP screen
Press the EXIT button.

4 Next you should select the command number you want the process to start with. Of course it's logical to start with 1 so press command 1 (the box the 1 with inside it).
This tells the amplifer this will be the first command.

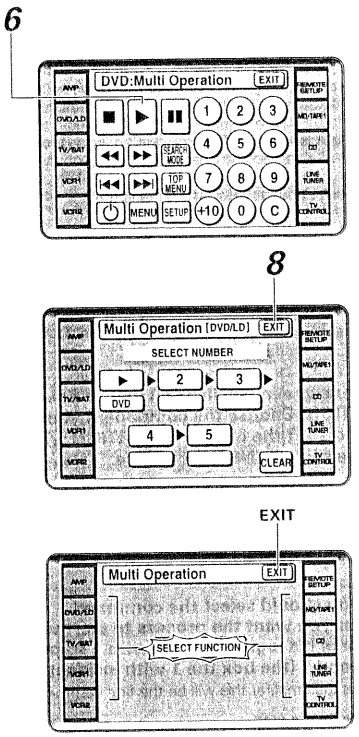
To go back one step
Press the EXIT button.

To go back to the REMOTE SETUP screen
Press the EXIT button repeatedly.

5 Select the component whose command you want to input (for example, a DVD player), and press that button on the remote control. The LCD screen for that component will appear on the remote control.
The screen for that component will appear in the LCD display.

To go back one step
Press the EXIT button.

To go back to the REMOTE SETUP screen
Press the EXIT button repeatedly.



6 Select a command from the screen of the component (for example ► [play]).

The command and component chosen will appear in the window of command 1.

To erase a command
Press the command button you want to erase and press the CLEAR button.

To go back one step
Press the EXIT button.

To go back to the REMOTE SETUP screen
Press the EXIT button repeatedly.

7 Repeat steps 4-6 to program a sequence of up to five commands.

You can assign MULTI OPERATIONS for up to 5 function buttons.

8 Press the EXIT button to leave the multi operation set up mode.

The remote control return to their previous operation modes.

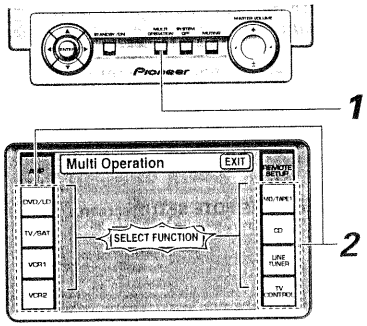
To erase a command
Press the command button you want to erase and press the CLEAR button.

To go back to the REMOTE SETUP screen
Press the EXIT button repeatedly.

Memo You don't need to program power on for PIONEER components, they will go on automatically if a command for that unit is entered in the MULTI OPERATIONS settings. Also, your TV will go on automatically if a TV related command is entered in the MULTI OPERATIONS.

Performing multi operations

Do the following to use the MULTI OPERATIONS.



1 Press the MULTI OPERATION button.

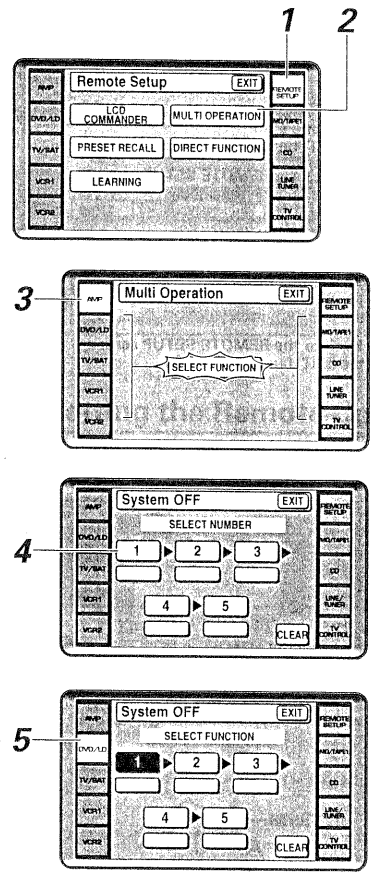
2 Press the function button that has been set up with multi operations.

The power of the main unit goes on and the programmed multi operations are performed automatically.

System OFF

The SYSTEM OFF feature allows you to tell the amplifier and your other components to stop and turn off with the push of only one button on the LCD commander. For example, you can program the unit to stop your DVD, turn off your TV, turn off your DVD player and turn off the amplifer itself. You don't need to program in other the power for PIONEER components, they will go off automatically in this mode. The amplifier itself will go off automatically as well.
The steps below show you how to program a string of up to 5 different SYSTEM OFF operations based on eight possible components.

Memo Be sure to recall or learn the remote commands for each component before programming the SYSTEM OFF function (see "Setting Up the Remote Control to Control Other Components", p. 50-53).



1 Press the REMOTE SETUP button.

2 Press the MULTI OPERATION button.

To cancel MULTI OPERATION
Press the EXIT button again.

3 The next screen will instruct you to SELECT FUNCTION. Press the AMP button.

To go back to the REMOTE SETUP screen
Press the EXIT button.

4 Next you should select the command number you want the process to start with. Of course it's logical to start with 1 so press command 1 button (the box the 1 with inside it).

This tells the amplifier this will be the first command. The number will become shaded.

To go back one step
Press the EXIT button.

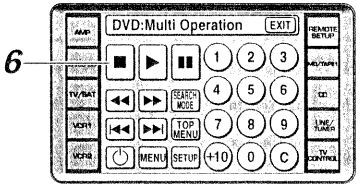
To go back to the REMOTE SETUP screen
Press the EXIT button repeatedly.

5 Select the FUNCTION button of the component which you want to stop or turn off (for example, stop your DVD player) and press that FUNCTION button on the remote control.

The screen for that component will appear in the LCD display.

To go back one step
Press the EXIT button.

To go back to the REMOTE SETUP screen
Press the EXIT button repeatedly.



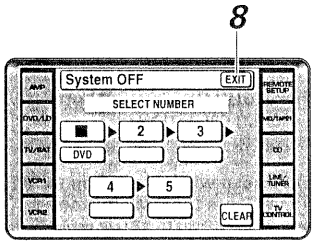
6 Select a stop (■) command.

The command and component chosen will appear in the window of command 1.

To erase a command
Press the command button you want to erase and press the CLEAR button.

To go back one step
Press the EXIT button.

To go back to the REMOTE SETUP screen
Press the EXIT button repeatedly.

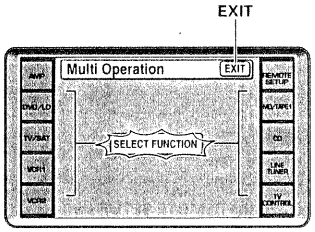


7 Repeat steps 4-6 to program a sequence of up to five stop or power off commands you want to input.

To erase a command
Press the command button you want to erase and press the CLEAR button.

To go back one step
Press the EXIT button.

To go back to the REMOTE SETUP screen
Press the EXIT button repeatedly.



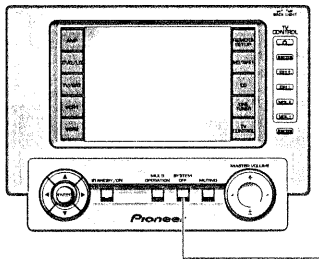
8 Press the EXIT button to leave the SYSTEM OFF set up mode.

To erase a command
Press the command button you want to erase and press the CLEAR button.

To go back to the REMOTE SETUP screen
Press the EXIT button repeatedly.

Using SYSTEM OFF

Do the following to use the SYSTEM OFF function.

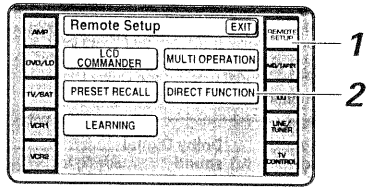


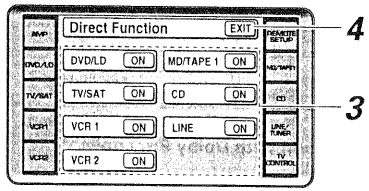
1 Press the SYSTEM OFF button.

The remote control must be on to be able to use this command but it can be in any mode.
All the components programmed into the SYSTEM OFF mode will stop and/or go off. The amplifier will go off as well.

Setting Up the Direct Function

The direct function will not be necessary for most users. It is designed in case you have an external video source connected to your TV (a video source that is not going through the VSA-E07). For this explanation we'll call this the "external video deck." You'd like to control external video deck with this unit's remote control so you've assigned it a function button (for example purposes, the VCR 2 button). Yet, if you put the amplifer in VCR 2 mode you'll get no picture on your TV because the external video deck signal is not going through the VSA-E07. To get around this problem you set the DIRECT FUNCTION for VCR 2 to OFF. Now when you press VCR 2 function button you can control the external video deck with the remote but the amplifer does not go into VCR 2 mode.





1 Press the REMOTE SETUP button.

2 Press the DIRECT FUNCTION button.

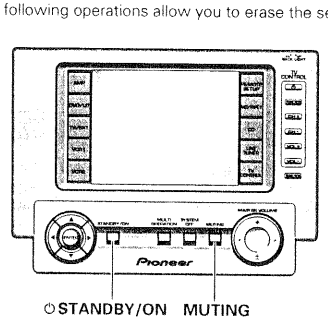
3 Set the DIRECT FUNCTION of each external source to OFF.

4 To leave the Direct Function mode press EXIT repeatedly.

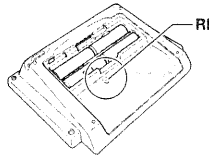
Memo The default setting for all DIRECT FUNCTIONS is ON.

Resetting the Remote Control

The following operations allow you to erase the settings stored in the remote control.



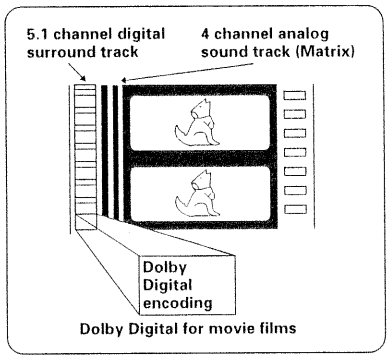
Hold down both the STANDBY/ON button and MUTE button and then push the RESET tab under the battery cover on the back of the remote control.



Dolby Digital

Dolby Digital is a compression format which records the sound of 6 channels of the theater surround system (Dolby Digital) on the movie film digital track. Of the 6 channels, the sub woofer channel is intended for bass only, and because the frequency range is smaller than the main channel, it is expressed as 5.1 channel.

Dolby Digital is the name of the Dolby surround multi-channel digital system that was developed after the Dolby Surround System and Dolby Pro Logic Surround System.

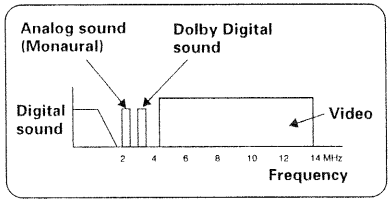


Dolby Digital for movie films

The number of movies made using Dolby Digital since 1992 has exceeded 300 and continues to increase. For compact disc players and laser disc digital sounds, 16 bits are used to sample the original analog audio waveform and sampling is carried out 44,100 times every second. However because an enormous amount of recording signal data is required for the multi channel system with this method, AC-3 is used to compress the data.
In reproducing audio signals, the smaller the bit number used, the lower the sound quality. With AC-3, drop in auditory sound quality is prevented by using masking technology and digital filtering technology based on the human auditory characteristics.

Laser disc format

Laser discs are now available on the market in large numbers. This means that the recording of different format audio signals on the laser disc raises the important question of compatibility with existing laser discs. Dolby Digital tracks on Laser discs record signals using the space of one analog audio channel so it will maintain compatibility with existing discs and players.
As shown in the following figure, the digital audio sounds of Dolby Digital discs can be played back as currently done. Analog sounds are played back by using the other channel without the Dolby Digital signals for monaural audio signals.



Comparison with Dolby Pro Logic Surround

Dolby Digital is also known as the 5.1 channel system. It is equipped with 5 channels (front left, front right, center, surround left, surround right) in the frequency range from 20 Hz to 20 kHz and an independent Low Frequency Effect (LFE) channel. The sub woofer channel is also called Low Frequency Effect (LFE).
The sub woofer channel can be used as desired to enjoy strong bass sounds.
The table on the next page shows the comparison with Dolby Pro Logic Surround effects.

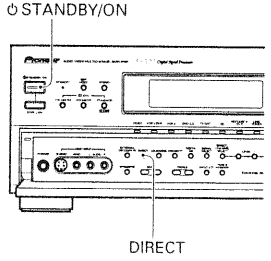
DTS

DTS has been adopted as a sound recording format in the latest movie theaters since the release of "JURASSIC PARK" in 1993, and has a good reputation for high quality sound and dynamic surround effects.
In this system, 6 channels of digital sound are recorded on CD-ROM, rather than on the film. DTS adopts a simultaneous playback format. With a low rate of compression of sound signals and a high rate of transmittance, a higher sound quality format is produced. Also, unlike the process of recording digital sounds on film directly, the only components required are a CD-ROM player as might be used with a personal computer and a DTS processor, and therefore less investment is required than with other formats. For this reason, the format is being introduced in more and more movie theaters, and is being adopted in home movie software (DVD, LD) and music software (5.1 channel CD).
More than 11,000 movie theaters around the world have adopted the DTS format, which is now the most popular digital format for movie theaters, especially in U.S.A, Europe, and Asia.

	Dolby Digital	DTS	Dolby Pro Logic Surround
No. of recorded channels	5.1 channels (Max.)	6 channels (Max.)	2 channels
No. of playback channels	5.1 channels (Max.)	6 channels (Max.)	4 channels
Playback channel structure	Front Left, Front Right, Center, Surround Left, Surround Right, Sub Woofer	Front Left, Front Right, Center, Surround Left, Surround Right, Sub Woofer	Front Left, Front Right, Center, Surround
Sound processing	Digital discrete processing	Digital discrete processing	Analog matrix processing
Rear (Surround) high frequency playback limit	20,000 Hz	20,000 Hz	7,000 Hz
Other	• 5.1 completely independent channels • High dynamic range • Stable position, high phase characteristics, and advanced surround effects reproduction • High efficiency (Compression ratio of about one-tenth)	• 6 completely independent channels • High dynamic range • Stable position, high phase characteristics, and advanced surround effects reproduction • Low compression ratio (about one-fourth), high quality sound	

Warning about DTS test mode

The VSA-E07 has a mode for PIONEER repairment to test the DTS sound quality. You will never need to access this mode. Rather you should be careful NOT to put the amplifier in this mode because doing so will erase all your setup parameters like speaker settings, delay settings, channel settings, etc.



In STANDBY mode, holding the DIRECT button and pressing the STANDBY/ON button will put the amplifier in DTS test mode. Be careful NOT to do this.

The above described method is similar to choosing either PAL or NTSC video setting and choosing 8 Ω or 6 Ω setting so be particularly careful when performing these operations not to accidentally put the amplifier in DTS test mode.

Memo If you accidentally put the amplifier in DTS test mode, repeat the same procedure (as above) to put the amplifier back in a usable mode. After this you will need to reset your setup parameters (speaker settings, delay settings, channel settings, etc.).

MPEG Audio

MPEG is an audio encoding system which delivers high quality audio for music and movies. By removing frequencies which are out of the human hearing range, the sound is then compressed to enable the transmission of mono, stereo, or multichannel (5.1 and 7.1) audio in a single bitstream which is why it has become a standard audio format for DVD and personal computers. The composition and versatility of MPEG audio also ensures that the presentation of a multichannel soundtrack will sound appropriate on everything from a 7.1 channel surround sound home theater setup to a mono television set. Above all, MPEG audio is designed to be compatible with past and future MPEG audio versions, which means that future versions of MPEG audio will be compatible with decoders currently being produced (the signal is merely reconfigured to fit the number of channels available in a system).

THX

THX is a Lucasfilm, Ltd. program dedicated to maximum accuracy in movie presentation. Movie sound tracks are recorded in large movie dubbing stages using movie theater equipment. For a sound track to be presented accurately in your home, special technologies are required. In your home the room is much smaller and has a bright sound, the speakers are very different and there are only six of them, plus, you sit much closer to each one of those speakers. Because of these differences we often miss the power and emotion that thrills us in a good movie. Now Pioneer and THX have teamed up to bring the full glory of accurate cinema sound to the comfort and convenience of your home.

Re-Equalization™ : In a theater the room is very large and dead sounding, you sit a long way back from the speakers and the speakers themselves are very specialized. Because a sound track recorded in this dead sounding space when it is played at home it sounds overbright. THX Re-Equalization adjusts for this difference in a very precise way.

Dynamic Decorrelation™ : When a sound track sends mono sound to the surround speakers it often seems to be coming from one side instead of from all around you as it would in a theater. Dynamic Decorrelation helps to correct this inaccuracy.

Timbre Matching™ : When recording a sound track it is very important that the surround sounds move smoothly and seamlessly around the theater. It is very distracting when sounds seem to jump from speaker to speaker. Timbre Matching helps to smooth the movement of the surround sounds even though you are using only two speakers.

Bass Peak Level Manager™ : Some Dolby Digital and DTS soundtracks can produce bass peaks that are undesirable in a home theater environment. The Bass Peak Level Manager allows you to set the maximum peak levels appropriate to your system. (Set this function according to the **BASS PEAK LEVEL MANAGER** instructions on page 34.)

Loudspeaker Position Time Synchronization™ : This feature allows you to adjust for the difference in the distance from each individual loudspeaker to the listening position. Doing this ensures that all the speakers operate in precise synchronization improving the seamless nature of the soundfield. (Set this function according to the **CHANNEL DELAY** instructions on page 30.)

Preset Code List

Device	Manufacturer	Code
DVD	TOSHIBA	001
	SONY	002
	PANASONIC	003
	JVC	004
	SAMSUNG	005
	SHARP	006
	AKAI	007
	RCA	009
	PIONEER	000, 008
LD	DENON	106
	HITACHI	105
	PHILIPS	104
	RADIOLA	104
	SONY	101, 103
	TELEFUNKEN	100
	PIONEER	100, 102 (DVD/LD player)
TUNER	PIONEER	500
SAT	PIONEER	200, 202
VCR	PHILIPS	414, 428
	PANASONIC	403, 408
	THOMSON	417, 420, 428
	SONY	416, 417
	JVC	407, 417, 428
	GRUNDIG	408, 414, 419, 425, 426, 427
	AKAI	401, 417
	HITACHI	406, 417, 419
	TOSHIBA	405, 409, 414, 417, 428
	MITSUBISHI	407, 409, 414
	SHARP	402
	ORION	412, 413, 424
	SANYO	410
	FERGUSON	417, 420, 421
	BLAUPUNKT	403, 408, 417, 427
	NOKIA	401, 410, 417
	SELECO	417
	AIWA	413, 419
	AKIBA	425
	ALBA	413, 415, 418, 423, 424
	AMBASSADOR	423
	AMSTRAD	419
	ANITECH	425
	ASA	411, 414
	BAIRD	410, 417, 419, 421
	BASIC LINE	418, 423, 425
	BRANDT	420, 422
	BRANDT ELECTRONIQUE	417
	BUSH	413, 415, 418, 424, 425
	CATRON	423
	CGB	419
	CIMLINE	425
	CLATRONIC	423
	CONDOR	423
VCR	CROWN	418, 423, 425
	DAEWOO	418, 423
	DANSAI	425
	DE GRAAF	406
	DECCA	414,419
	DUAL	417
	DUMONT	410, 414, 419
	ELCATECH	425
	FIDELITY	419
	FINLANDIA	410, 414
	FINLUX	406, 410, 414, 419
	FIRSTLINE	405, 409, 411, 424, 425
	FISHER	410
	FRONTECH	423
	FUNAI	419
	GBC	414
	GENERAL	423
	GOLDSTAR	411
	GOODMANS	411, 418, 419, 423, 425
	GRAETZ	410, 417
	GRANADA	410, 414
	GRANDIENTE	430
	GRANDIN	411, 419, 425
	HCM	425, 426
	HINARI	412, 413, 425, 426
	HYPSON	425
	IMPERIAL	419
	INTERFUNK	414
	ITT	401, 410, 417, 428
	ITV	411, 418
	KAISUI	425
	KENDO	401, 424
	KORPEL	425
	LEYCO	425
	LOEWE	411, 414
	LUXOR	401, 409, 410
	M-ELECTRONIC	419
	MANESTH	405, 425
	MARANTZ	414
	MATSUI	412, 413, 424
	MEMOREX	410, 411, 419
	MEMPHIS	425
	METZ	403, 427
	MINERVA	427
	MULTITECH	419, 425
	MURPHY	419
	NBC	407, 417
	NECKERMANN	414
	NESCO	425
	NORDMENDE	417, 428
	OCEANIC	417, 419
	OSAKI	411, 419, 425
	OTTO VERSAND	414
	PALLADIUM	411, 417, 425
	PATHE MARCONI	417
	PENTAX	406
	PERDIO	419

Device	Manufacturer	Code
VCR	PHONOLA	414
	PORTLAND	423
	PROLINE	419, 426
	PYE	414
	QUELLE	414
	RADIOLA	414
	REX	417, 428
	ROADSTAR	411, 418, 425
	SABA	417, 420, 428
	SAISHO	412, 424
	SALORA	401, 409
	SANSUI	407, 417
	SBR	414
	SCHAUB LORENZ	417, 419
	SCHNEIDER	414, 419, 425
	SEI	414
	SENTRA	423
	SHINTOM	425
	SIEMENS	410, 411, 427
	SINGER	405
	SINUDYNE	414
	SOLAVOX	423
	SUNSTAR	419
	SUNTRONIC	419
	TASHIKO	419
	TATUNG	414, 417, 419
	TEC	423
	TELEAVIA	417
	TELEFUNKEN	417, 420, 422, 428
	TENOSAL	425
	TENSAI	419
	THORN	410, 417
	UNIVERSUM	401, 411, 414, 419, 427
	YAMISHI	425
	YOKAN	425
	YOKO	423
	PIONEER	400, 404, 407, 414, 431 (DVD video recorder)
TAPE	AKAI	823
	ARCAM	810
	DENON	810, 821
	FISHER	813
	GRUNDIG	815
	JVC	802
	KENWOOD	804, 807, 816
	LUXMAN	805
	MARANTZ	815
	MEMOREX	819
	MITSUBISHI	823
	NAKAMICHI	806
	ONKYO	808, 812
	PHILIPS	815
	SANSUI	818
	SHERWOOD	809
	SONY	801, 817
	TANDBERG	814
	TECHNICS	803
	TOSHIBA	820, 822
	YAMAHA	811, 816
	PIONEER	800, 819

Device	Manufacturer	Code
CD	AKAI	308
	ARCAM	312
	ASUKA	313
	AUDIO TON	312
	BUSH	305
	CALIFORNIA AUDIO LAB	304
	CYRUS	312
	DENON	309
	DUAL	313, 319
	FISHER	317
	GOLDSTAR	302
	GRUNDIG	312
	HITACHI	307
	INTERSOUND	313
	JVC	303
	KENWOOD	310, 311
	KODAK	322
	LINN	312
	LUXMAN	318
	M ELECTRONIC	323
	MARANTZ	304, 312
	MATSUI	312
	MCS	304
	MEMOREX	300
	MERIDIAN	312
	MITSUBISHI	308
	NAD	316
	NAIM	312
	ONKYO	320
	PANASONIC	304
	PHILIPS	312, 322
	QUAD	312
	QUASER	304
	ROADSTAR	323
	ROTEL	312
	SABA	319
	SANYO	317
	SHARP	321
	SONY	301, 316
	TECHNICS	304, 306
	TELEFUNKEN	319
	THOMSON	319
	UNIVERSUM	312
	YAMAHA	314, 315
	PIONEER	300, 325 (CD recorder)
TV	PHILIPS	601, 607, 610, 636
	SONY	604
	GRUNDIG	601, 632
	PANASONIC	601, 608, 620, 622
	TOSHIBA	605, 632
	TELEFUNKEN	612, 614, 631
	SHARP	602
	SAMSUNG	607, 615, 623, 625
	HITACHI	601, 606, 610, 612, 620, 621, 633, 637
	SABA	601, 612, 620, 630
	BRANDT	612
	SANYO	611, 624, 627

Device	Manufacturer	Code
TV	THOMSON	612, 630, 631
	FERGUSON	607, 612, 630
	NOKIA	603, 620, 631
	MITSUBISHI	601, 609
	SCHNEIDER	607, 619, 626
	GOLDSTAR	607, 629
	BLAUPUNKT	601
	NORDMENDE	603, 612, 630, 631
	RADIOLA	607
	JVC	613
	DAEWOO	607, 623, 636
	ORION	603, 607, 616, 617
	SIEMENS	601
	ACURA	623
	ADMIRAL	601
	AKAI	603, 611, 620
	AKURA	619
	ALBA	607, 616, 619, 623
	AMSTRAD	620, 623, 626
	ANITECH	623
	ASA	624
	ASUKA	619
	AUDIOGONIC	607, 612
	BASIC LINE	619, 623
	BAUR	601, 607, 620
	BEKO	615
	BEON	607
	BLUE SKY	619
	BLUE STAR	618
	BPL	618
	BTC	619
	BUSH	607, 619, 620, 623, 626, 636
	CASCADE	623
	CATHAY	607
	CENTURION	607
	CGB	620
	CIMLINE	623
	CLARIVOX	607
	CLATRONIC	615
	CONDOR	615
	CONTEC	623
	CROSLEY	603
	CROWN	615, 623
	CRYSTAL	620
	CYBERTRON	619
	DAINICHI	619
	DANSAI	607
	DAYTON	623
	DECCA	607, 627
	DIXI	607, 623
	DUMONT	632
	ELIN	607
	ELITE	619
	ELTA	623
	EMERSON	620
	ERRES	607
	FINLANDIA	611, 621, 635
	FINLUX	603, 607, 624, 627, 632, 633, 635

Device	Manufacturer	Code
TV	FIRSTLINE	617, 623
	FISHER	603, 611, 615, 624
	FORMENTI	603, 607, 620
	FRONTECH	601, 620, 625
	FRONTECH/ PROTECH	603
	FUJITSU	627
	FUNAI	617, 625
	GBC	603, 620
	GEC	607, 610, 627
	GELOSO	603, 623
	GENEXXA	601, 619
	GOODMANS	607, 616, 626, 627, 636
	GORENJE	615
	GPM	619
	GRAETZ	601, 620
	GRANADA	607, 611, 620, 621, 627
	GRANDIENTE	639
	GRANDIN	618
	HANSEATIC	607, 620
	HCM	618, 623
	HINARI	607, 619, 623
	HISAWA	618
	HUANYU	636
	HYPSON	607, 618, 625
	ICE	625, 626
	IMPERIAL	615, 620
	INDIANA	607
	INGELEN	601
	INTERFUNK	601, 603, 607, 620
	INTERVISION	625, 628
	ISUKAI	619
	ITC	620
	ITT	601, 603, 620
	JEC	605
	KAISUI	618, 619, 623
	KAPSCH	601
	KENDO	620
	KENNEDY	603, 620
	KORPEL	607
	KOYODA	623
	LEYCO	607, 617, 625, 627
	LIESENK&ITTER	607
	LUXOR	603, 620, 621
	M ELECTRONIC	601, 623, 624, 633, 635, 636
	M-ELECTRONIC	607, 612, 630
	MAGNADYNE	603, 628
	MAGNAFON	628
	MANESTH	616, 625
	MARANTZ	607
	MARK	607
	MATSUI	607, 616, 617, 620, 623, 626, 627
	MCMICHAEL	610
	MEDIATOR	607
	MEMOREX	623
	METZ	601
	MINERVA	601, 632
	MULTITECH	623, 628
	NECKERMANN	601, 607

Device	Manufacturer	Code	Device	Manufacturer	Code
TV	NEI	607, 620	TV	SONOKO	607, 623
	NIKKAI	605, 607, 619, 625, 627		SONOLOR	601, 611
				SONTEC	607
	NOBLIKO	628		SOUNDWAVE	607
	OCEANIC	601, 603, 620		STANDARD	619, 623
	OSAKI	619, 625, 627		STERN	601
	OSO	619		SUSUMU	619
	OSUME	627		SYSLINE	607
	OTTO VERSAND	601, 603, 607, 620		TANDY	601, 619, 627
	PALLADIUM	615		TASHIKO	610
	PANAMA	625		TATUNG	607, 627
	PATHO CINEMA	620		TEC	620
	PAUSA	623		TELEAVIA	612
	PHILCO	603, 620		TELETECH	623
	PHOENIX	603		TENSAI	617, 619
	PHONOLA	607		THORN	601, 607, 620, 624, 627
	PROFEX	620, 623			
	PROTECH	607, 620, 623, 625, 628		TOMASHI	618
				TOWADA	620
	QUELLE	601, 603, 607, 620, 624, 632		ULTRAVOX	603, 620, 628
				UNIVERSUM	601, 607, 615, 620, 624, 625, 633, 635
	R-LINE	607			
	RBM	632		VESTEL	607
	REDIFFUSION	603, 620		VOXSON	601
	REX	601, 625		WALTHAM	621
	ROADSTAR	619, 623, 625		WATSON	607
	SAISHO	616, 623, 625		WATT RADIO	603, 620, 628
	SALORA	601, 603, 620, 621		WHITE WESTINGHOUSE	607
	SAMBERS	628			
	SBR	607, 610		YOKO	607, 620, 625
	SCHAUB LORENZ	620		PIONEER	600, 601, 603, 607, 612, 620, 630
	SEG	620, 625	MD	SONY	901
	SEI	603, 617, 628		KENWOOD	903
	SELECO	601, 620		SHARP	902
	SIAREM	603, 628		TEAC	904
	SINUDYNE	603, 616, 617, 628		ONKYO	905
	SKANTIC	621		DENON	906
	SOLAVOX	601		PIONEER	900,902

Troubleshooting

Incorrect operations are often mistaken for trouble and malfunctions. If you think that there is something wrong with this component, check the points below. Sometimes the trouble may lie in another component. Investigate the other components and electrical appliances being used. If the trouble cannot be rectified even after exercising the checks listed below, ask your nearest PIONEER authorized service center or your dealer to carry out repair work.

Symptom	Cause	Remedy
The power does not turn ON.	• The power plug is disconnected.	• Connect the power plug to the wall outlet.
	• Main power button is OFF (■).	• Set the Main power button to ON (▬).
	• The protection circuit may have been activated.	• Disconnect the power plug from the outlet, and insert again.

Symptom	Cause	Remedy
The unit does not respond when the buttons are pressed.	• Static electricity caused by dry air.	• Disconnect the power plug from the outlet, and insert again.
No sound is output when a function is selected.	• Improper connections.	• Make sure the component is connected correctly (see p. 8-15).
	• Sound is muted.	• Press MUTE on the remote control.
	• The volume is turned down.	• Adjust MASTER VOLUME.
	• The TAPE 2 MONITOR is ON.	• Press the TAPE 2 MONITOR button.
	• Speakers are turned OFF.	• Press SPEAKERS (A/B) to select the speakers you connected.
	• DIGITAL/ANALOG switch is set incorrectly.	• Set SIGNAL SELECT (see p. 45)
Sub woofer output is very low.	• Settings route signal away from Sub woofer	• To get more signals to the sub woofer set it to PLUS or choose SMALL for the FRONT speakers (see p. 28-29).
No sound from surround or center speakers.	• Speaker settings are incorrect.	• See "SPEAKER SETTING" on p.28-29 to check the speaker settings.
	• The rear and/or center levels are turned down.	• See "CHANNEL LEVEL" p.31-32 to check the speaker levels.
	• The surround and/or center speakers are disconnected.	• Connect the speakers (see p.13, 15).
Sound is produced from some components, but not from digital components.	• SIGNAL SELECT is set incorrectly.	• Set SIGNAL SELECT to "AUTO" according to the type of connections made (see p. 45).
	• The digital inputs are assigned incorrectly, or not at all.	• Set the digital input settings correctly (see p.10, 11, 36-37).
No sound is output or a noise is output when software with DTS is played back.	• SIGNAL SELECT is set to "ANALOG".	• Make digital connections (see p.10, 11) and set SIGNAL SELECT to "DIGITAL" (see p. 45).
	• A DVD player not compatible with DTS is used, or the setting of the DVD player is incorrect.	• Refer to the instruction manual supplied with the DVD player.
	• The digital output level has been turned down on a CD player or other component equipped with digital output level adjustment capability. (The DTS signal has been altered by the player, and cannot be read.)	• Set the digital volume level of the player to full, or to the neutral position.
The sound is output intermittently when software with DTS is played back. The overload indicator is lit.	• Disc being played back has a huge amount of information on it.	• Use the STANDARD mode to get the best results (see Memo on p.42).
When a search is performed by a DTS compatible CD player during playback, noise is output.	• The search function performed by the player interferes with the reading of digital information.	• This is not a malfunction, but be sure to turn the volume down to prevent the output of loud noise from your speakers.
Cannot be remote controlled.	• The remote control batteries have worn out.	• Replace the batteries (see p.6).
	• Too far away or bad angle of operation.	• Operate within 7 m, 30° of the remote sensor on the front panel (see p.7).
	• There is an obstacle between the amplifier and the remote control.	• Remove the obstacle or operate from another position.
	• Strong light such as fluorescent light is shining onto the unit's remote control signal sensor window.	• Avoid exposing the remote sensor on the front panel to direct light.
	• A cord is connected to the CONTROL IN terminal on this unit.	• Connect cord to the correct jack.
The display is dark.	• The FL DIMMER button is pushed.	• Press FL DIMMER on the front panel repeatedly to return to the default setting. (see p.49)

If the unit does not operate normally due to external effects such as static electricity

Disconnect the power plug from the outlet and insert again to return to normal operating conditions.

Specifications

Amplifier Section

Continuous Power Output (STEREO MODE)
FRONT .... 130 W + 130 W (DIN 1 kHz, THD 1 %, 6Ω)
Continuous Power Output (SURROUND MODE)
FRONT .... 130 W + 130 W (DIN 1 kHz, THD 1 %, 6Ω)
CENTER ..... 130 W (DIN 1 kHz, THD 1 %, 6Ω)
SURROUND ..... 130 W + 130 W (DIN 1 kHz, THD 1 %, 6Ω)
Rated Power Output ..... 100 W + 100 W (20 Hz-20 kHz, THD 0.09 %, 8Ω)

- Above specifications are applicable when the power supply is 230V.

Input (Sensitivity/Impedance)
PHONO MM ..... 4.7 mV/47 kΩ
VCR 1/DVR, VCR 2, DVD/LD, TV/SAT, VIDEO, CD, LINE/TUNER, MD/TAPE 1/CD-R, TAPE 2 ..... 335 mV/47 kΩ
Phono Overload Level (T.H.D. 0.1 %, 1 kHz)
PHONO MM ..... 120 mV
Frequency Response
PHONO MM ..... 20 Hz to 20,000 Hz ±0.3 dB
VCR 1/DVR, VCR 2, DVD/LD, TV/SAT, VIDEO, CD, LINE/TUNER, MD/TAPE 1/CD-R, TAPE 2 ..... 5 Hz to 100,000 Hz +0 -3 dB
Output (Level/Impedance)
VCR 1/DVR REC, VCR 2 REC, MD/TAPE 1/CD-R REC, TAPE 2 REC ..... 335 mV/1 kΩ
Tone Control
BASS ..... ± 6 dB (100 Hz)
TREBLE ..... ± 6 dB (10 kHz)
LOUDNESS ..... +3 dB (100 Hz/10 kHz)
Signal-to-Noise Ratio (IHF, short circuited, A network)
PHONO MM ..... 80 dB
VCR 1/DVR, VCR 2, DVD/LD, TV/SAT, VIDEO, CD, LINE/TUNER, MD/TAPE 1/CD-R, TAPE 2 ..... 101 dB
Signal-to-Noise Ratio
[DIN (continuous rated power output/50 mW)]
PHONO MM ..... 68/61 dB
VCR 1/DVR, VCR 2, DVD/LD, TV/SAT, VIDEO, CD, LINE/TUNER, MD/TAPE 1/CD-R, TAPE 2 ..... 92/65 dB

VIDEO Section (S jack)

Input (Sensitivity/Impedance)
VCR 1/DVR, VCR 2, VIDEO, DVD/LD, TV/SAT
Luminance signal (Y) ..... 1 Vp-p/75 Ω
Chrominance signal (C) ..... 0.286 Vp-p/75 Ω
Output (Level/Impedance)
VCR 1/DVR, VCR 2, MONITOR
Luminance signal (Y) ..... 1 Vp-p/75 Ω
Chrominance signal (C) ..... 0.286 Vp-p/75 Ω
Frequency Response
VCR 1/DVR, VCR 2, VIDEO, DVD/LD, TV/SAT
Luminance signal (Y) ..... 5 Hz to 10 MHz +0 -3 dB
Signal-to-Noise Ratio
Luminance signal (Y) ..... 65 dB
Isolation (3.58 MHz)
Y→C ..... 55 dB
C→Y ..... 55 dB

VIDEO Section (Composite)

Input (Sensitivity/Impedance)
VCR 1/DVR, VCR 2, VIDEO, DVD/LD, TV/SAT ..... 1 Vp-p/75 Ω
Output (Level/Impedance)
VCR 1/DVR, VCR 2, MONITOR TV ..... 1 Vp-p/75 Ω
Frequency Response
VCR 1/DVR, VCR 2, TV/SAT ,DVD/LD
VIDEO→MONITOR ..... 5 Hz to 10 MHz +0 -3 dB
Signal-to-Noise Ratio ..... 65 dB
Isolation ..... 55 dB

Miscellaneous

Power Requirements
UK model ..... AC 230 V, 50/60 Hz
European model ..... AC 220 - 230 V, 50/60 Hz
Power Consumption ..... 500 W
Power Consumption in Standby mode ..... 1.0 W
AC Outlets (except for the UK model)
SWITCHED (×2) ..... Total 100 W MAX.
UNSWITCHED ..... 100 W MAX.
Dimensions ..... 420 (W) × 173 (H) × 470 (D) mm
Weight (without package) ..... 17.2 kg

Furnished Parts

Dry Cell Batteries (SIZE "AA" (IEC LR6)) 4
Remote Control Unit with a touch pen attached 1
Cushion for Remote 4
Operating Instructions 1

NOTE:
Specifications and the design are subject to possible modifications without notice, due to improvements.

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